The "Cider Press" is a publication of the San Francisco Apple Core!

SAN FRANCISCO APPLE CORE
INCORPORATED
1515 Sloat Blvd., Suite 2
San Francisco, CA 94132

Instructions:
Circle items you wish to purchase.
Place this sheet in envelop with your check and send to:

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	3.00	4.50	
CIDER PRESS-subject to availability			
	1.00	1.60	
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Foreign - Add 25% to meeting prices.

In coming months we will offer our members 'special' deals on hardware and software items (where we can get 'group' rates). Items such as boxes of diskettes will be especially good bargains.

NOTES

The **D**isk **O**f the **M**onth is a group of recently donated programs. See monthly issue of the Cider Press for listing of programs for that month.

The **Best of Cider Press Disk, Vol xx** contains most of the progrms printed in the publication "The Best of the Cider Press, Vol xx".

Cattlecar Galactica Disk is for the experienced programmer only. It was written by Bruce Tognazzini; the program takes over your Apple II. The object is to get control back without turning off the Apple!

Library #1 contains over 340 programs on 20 diskettes. It is packaged in diskette holders and is bound in a SF Apple Core binder with over 30 pages of documentation. The documentation alone is available for three dollars.

Library #2 contains over 250 programs from the 1980 DOMs. This library also contains some special disks. Cattlecar Galactia, Apple II Plus Disk (for users wishing to run 'Integer' programs in RAM), the new 16 Sector Utility Disk with all the Lawrence Hall of Science programs we used in the 13 sector disks, and the IAC disk of HiRes games. The library includes disks, binder, plastic holders, and documentation. As with Library #1, the documentation is available alone for three dollars!

The Best of the Cider Press 1978 - 1979 is a two year anthology of articles, program listings and charts from the SF Apple Core's newsletter **"The Cider Press"**. Sections range from articles for the beginner to charts of PEEKS, POKES, and CALLS.

The Best of the Cider Press 1980 condenses the entire 1980 year into 116 pages of information on everything from a Beginner's Corner to Graphics and Shape Tables. A large Pascal section with many program examples is included.

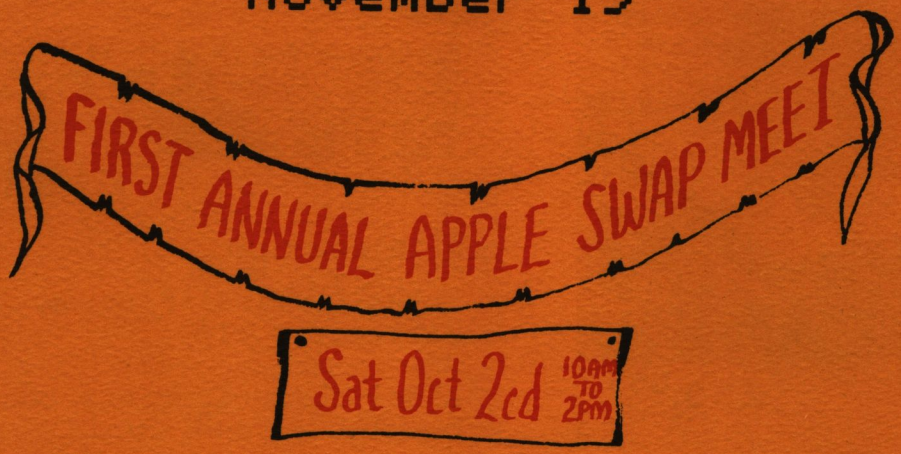
(The Editor has determined that to publish a 'Catalog Listing' for each listed diskette certainly would be helpful, but then the name of the magazine would have to be changed to **LIST**. Moral: It's more fun to read articles than to 'catalog' the contents of diskettes.)

Cider PRESS

San Francisco Apple Core

September/October, 1982

Meetings:
September 18
October 2
November 19



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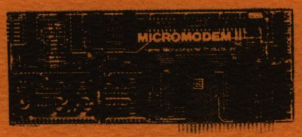

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The San Francisco Apple Core Presents

The First Annual Apple Swap Meet

Saturday, October 2, 1982

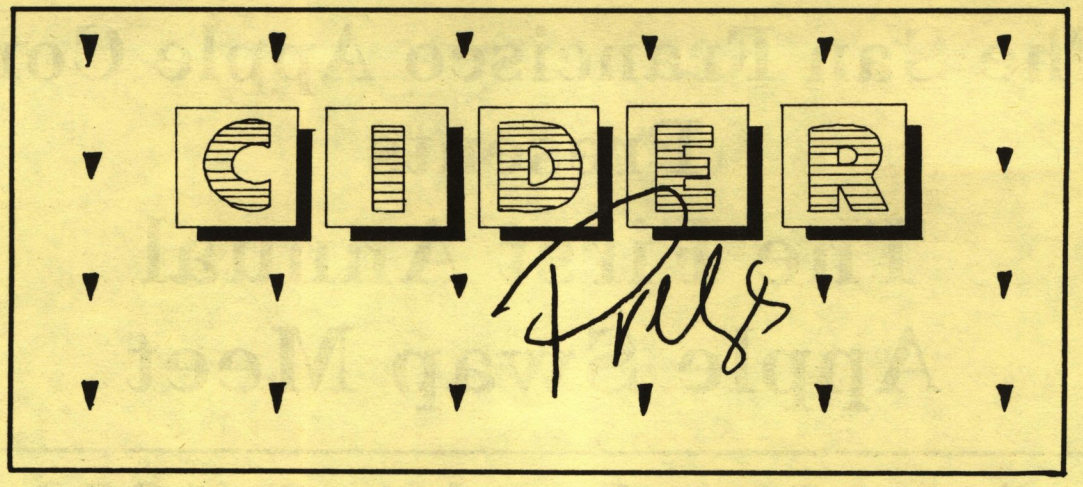
Fort Mason National Recreation Center
Building C., San Francisco, 10 AM to 2 PM

Used Apple equipment (hardware and software) will be bought, sold, and swapped; and at 1 PM, an Auction will be held.

You are advised to arrive early, while material is still plentiful.

Admission: Free to all San Francisco Apple Core members (bring and show your membership card). Non-members, $1.00 at the door.

Booth space: There will be a limited number of booths available at this swap meet. For details, contact Ken Silverman at (408) 727 - 7652, between 9 AM and 5 PM. First come, first served.



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Article Submission: The CIDER PRESS welcomes any and all articles dealing with Apple computers and their associated hardware and software. Articles may be submitted (typed or printed, double-space), or as disk text files using any of the popular word processors or text editors. Any author who has an article published in the CIDER PRESS will receive a free copy of the most current Disk-of-the-Month.

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DISK-of-the-MONTH

The San Francisco Apple Core publishes a disk of contributed BASIC and machine-language programs for the Apple I I every month. In addition, Pascal Disks are released periodically. We always welcome your contributions of public domain programs to these disks, which are amassed into the Club library. Any contributor of a program used on a Club Disk will receive the latest BASIC or Pascal disk, FREE. Why not submit one or more programs now? It/they can be utility, game, educational aid, business-related, graphics, or other program(s).

San Francisco Apple Core
1515 Sloat Blvd.
San Francisco, CA 94132

MONTHLY SCHEDULE OF ACTIVITIES

The monthly meeting of the San Francisco Apple Core will be held Saturday September 18, 1982. It will be held in building C at Fort Mason, San Francisco.

Interest Group Schedule for the Month of September

Monday	Tuesday	Wednesday	Thursday
		1	2 Green Apples
6	7 FORTH Graphics	8	9 BASIC
13	14 VisiCalc CP/M	15 Apple ///	16 Directors
20	21 FORTH	22 Assembly	23 Green Apples
27	28 Epson CP/M	29	30 Green Apples

The monthly meeting of the San Francisco Apple Core will be held Saturday October 21, 1982. It will be held in building C at Fort Mason, San Francisco.

Interest Group Schedule for the Month of October

Monday	Tuesday	Wednesday	Thursday
4	5 FORTH Graphics	6	7 Green Apples
11	12 VisiCalc CP/M	13	14 Directors
18	19 FORTH	20 Apple /// Assembly	21 Green Apples
25	26 Epson CP/M	27	28 Green Apples

Interest Group Leaders

Apple ///	Don Norris	393-6290 day
Assembly	John Lynch	665-0136
Business	Fred Wilkinson	585-2240
CP/M	Jim Ayers	383-0473 day 383-5759 eve
Epson	Mike Fisher	557-1250 day 933-4435 eve
Forth	Bob Ackerman	626-6295
Graphics	Molly Mitchell	526-9541
Green Apples BASIC	Gary Owens	521-4002
Intermediate BASIC	Gary Owens	521-4002
Nu'ers	Fred Wilkinson	585-2240
Product Review	Woody Liswood	585-6375
VisiCalc	Don Scellato	271-8895 day 672-2051 eve

INTEREST GROUP COMMENTARY

Steve Lloyd

- General meeting

This months general meeting has been transformed into a zoo of interest groups. Yes ladies and gentlemen, boys and girls it's time for our sometimes annual, sometimes bimonthly Interest Group Extravaganza. Please hold your applause.

As Paul and Art once said, "People tell me its all happening at the zoo". That's not quite true, but close.

If you have wanted to attend an interest group, but couldn't find the time or didn't think you were advanced enough, now is your chance to find out what's going on simply by coming to the regular Saturday meeting. No hassle, no embarrassment.

Lots of the regular interest groups will be there:

BASIC	Green Apples
VisiCalc	Apple ///
Graphics	Assembly

There will also be an assortment of other interesting groups:

Sales table	Membership table
Gossips	Questions
Answers	Directors

The meeting will start promptly at 10:00 am and end sometime thereafter. Hope we will see you there.

- Pascal

There has been a lot of disappointment expressed regarding the demise of the Pascal interest groups. A poll taken at the last meeting indicates that there is lots of interest in the San Francisco Apple Core conducting a class on how to use the Apple][Pascal system and how to write Pascal programs.

If you would like to take such a class (given in SF or some other place) or teach same, please give me a call so I can make the necessary arrangements.

For the instructor, there are a variety of services which the SFAC can provide. Assistance with lesson plans, copying of hand-outs, computer and other hardware necessary to conduct the class. Give me a call if you are interested, I'll be happy to make the necessary arrangements.

B*A*S*I*C

(c) 1982 by Joyce Conklin

Before starting on this month's topic, I find that there needs to be a correction to last month's column (again!). Under Question #4, it states that you can use ESC-degree sign for home. Well, if you can find a degree symbol on YOUR keyboard, you must be using a different computer than mine! This is a result of how the printer (the machine, not the company!) we use for the Cider Press interprets the character that my computer types as an "at" sign. So let's try again; the way to avoid typing "HOME" all the time is to press the ESC key and then SHIFT-P. This is sometimes written ESC-@.

Now for the comments on the user-friendly example in the August column. I should never try to meet the Cider Press deadline by writing late on a Friday night! I committed two errors in writing the example; I hope you did better with yours.

1. I used the same designation for an input variable (line 200, 400) as for the array name (line 10, 500) which will definitely cause all sorts of problems.

2. I should have used a string variable for the input in lines 200 and 400 (remember the discussion in the July column?).

So let's make the following corrections:

```
10 F = 0: DIM(A) = 100: DIM(B) = 100
200 INPUT "ENTER STUDENT NUMBER ";SN$
250 SN = VAL(SN$)
400 INPUT "ENTER STUDENT SCORE ";SC$
450 SC = VAL(SC$)
500 F = F + 1:A(F) = SN: B(F) = SC
```

Now to answer the question at the end - "What will happen if there are more than 21 students?" If you have been working on this at your computer you will have seen that the student numbers and scores as well as the title will scroll off the top of the screen. If you are doing all your output to the printer, you haven't lost anything, but if it's all on the screen, it could be rather annoying, to say the least. So we want to do a couple of things; "protect" the title line (printed in line 640 of the program) so that it stays on the screen, and allow the user to look at a set of data for as long as s/he wants before going on to the next set.

The "window" is the area on the screen over which the text, picture, etc. moves. You can control this so that you save material at the top, the bottom, or both sides. We will take the easy example for now and protect what is written on the screen at the top. The computer keeps track of this information at a location called "34". You can tell the computer what line you want to be the top of the window by "poking" a number into location 34. Now the question is, what number do you poke? It turns out that if you print on line 3 of the screen (line 620 in the program) and you want to protect this line, then insert a program line that reads POKE 34,3. Since you need to print the title line before you protect it, put your POKE 34,3 line at line 660 of your program. There's one more correction to the original program to make and then we can go on. Given the program printed in the August column, what are you protecting with your POKE statement? We need to make two corrections in line 300. First, we've changed the name of the variable from A to SN; then we should have the address of the THEN portion be 620 rather than 700 or the title line will never print.

Now... we've protected the title line, but we still have the numbers scrolling off the screen when we have more than 20 students. This is because the Apple will always try to save one line at the bottom for the cursor, which will appear after the end of the program. Count 'em; we used 3 lines at the top (two spaces and the title line) plus 20 lines for student data which will take us to line 23 on the screen. When the last student data (student #21) prints, then the computer pushes all the data up one, thus scrolling student #1 off the screen, and prints the prompt sign at the lower left of your screen. Not so good, especially if you have many more that 21 students. Now what?

You can have a sub-routine called a screen pause. A what called a which? A sub-routine is a small program segment which will not run all by itself, but which can be used repeatedly from the main program. Type the sub-routine once and then invoke it whenever you need it; sure beats typing it in over and over again. The screen pause will cause execution of the program to stop until the user does something such as pressing a key. But how does said user know which key to press? Ah ha, here is the sub-routine called "Screen Pause". We'll number is 5000 to be sure to have it out of the way of other program lines (you could call it 25000 if you wish).

```
5000 VTAB 23:HTAB 7:PRINT"PRESS <SPACE> TO
    CONTINUE"
5010 VTAB 24:HTAB 9:PRINT"PRESS <ESC> TO
    END [ ];":HTAB 30:GET KK$
5020 IF KK$ = CHR$(3) OR KK$ = CHR$(27) THEN
     TEXT: HOME:END
5030 IF KK$ = CHR$(32) THEN HOME: RETURN
5040 GOTO 5000
```

To explain the various parts of this routine one by one:
Line 5000; VTAB is the command to move the cursor vertically on the screen. You can use it to move the cursor to a position below the current one (the same as using the PRINT command repeatedly) **OR** to a position above the present one (you can't do THAT with the PRINT statement!). The appropriate range for the VTAB argument is 1 to 24, the number of lines on the screen. HTAB does a similar thing with the cursor in a horizontal direction, with the appropriate range being 1 through 40.
Line 5010: The new thing here is the left square bracket. According to Appendix K in your Basic Programming Reference Manual, this character is not available in Applesoft. Well, yes and no. It cannot be typed directly, even with two or three keys, from the keyboard. But you can get it to type in with a bit of finagling. [I can do it from the word-processor while typing the article, or by using the macro capability of Program Line Editor. If you are at all serious about doing your own programming, you should purchase a copy of the latest version, called Global Program Line Editor, reviewed in last month's Cider Press.] If you don't have GPLE then you could modify the program line as follows:

```
5010 VTAB 24: HTAB 9: PRINT "PRESS <ESC> TO
    END";CHR$(93);" ]";:HTAB 29:GET KK$
```

Notice that CHR$(93) is the decimal code for the ASCII character [. Another very important part of this program line. The semi-colon is signal used to tell the computer that you want everything printed in a continuous line, not in separate lines. The important semi-colon is the one just before the colon (;:)... it is the one which makes the cursor stay on that line (line #24 of the screen, right?) instead of dropping down to the next line and fouling up all our work of trying to prevent scrolling! The last new part of this line is the GET statement. It's sort of like an INPUT statement, but does not require the user to press return; it reacts as soon as a key, any key, is pressed. Notice that in the program lines as well as in the discussion I have been using the verb "press" rather than "push" or, worse yet, "hit". The Apple keyboard is pretty sturdy but HITTING the keys is never required, so why encourage the unsophisticated user to bash his Baldwin??
Line 5020 tests to see if the key which was pressed was either ESC or CTRL-C. CTRL-C is built into the Apple as a way to break out of a program; you built in ESC as the way to leave your program.

Notice that you must repeat the "KK$= " portion; you CANNOT phrase the line "IF KK$ = CHR$(3) OR CHR$(27)...". TEXT is the equivalent of POKE 34,0 with less typing; it makes the whole screen the "window".
Line 5030 tests for the space bar being pressed (CHR$(32). Since we protected the title with POKE 34,3 in Line #660, the HOME will only clear out the screen from line 4 down, leaving space for the next set of numbers.
Line 5040 says, in effect, "if you press anything else, I'll just ask you again". Notice that the reprinting of the screen lines 23 and 24 is so fast that the only thing you see moving at all is the cursor blinking a bit.

O.K., now we've got our subroutine sitting out of the way of the body of the program; how do we get to it, and when? We're going to need 2 lines at the bottom of the screen for the subroutine print lines, so we want the last line of student numbers and scores to be line 22 of the screen. How does the computer check this? By the "inverse" of the POKE command, called PEEK. What this command does is to check the contents of a particular address in memory, rather than specifying those contents, as does POKE. Let's insert one more line, and we'll have a program that will run for all numbers of students up to 100.

```
850 IF PEEK (37) = 22 THEN GOSUB 5000
```

Line 850 won't move anything on the screen (it's not a PRINT statement); it checks to see if the last vertical position of the cursor was 22; if it is, the subroutine is called. If it is anything less than 22 (would it ever be MORE than 22?) line 850 is not executed and the program pointer moves on to line 900. A final modification is necessary to "protect" your subroutine from being run after you're all through with the program, which would result in the error message "RETURN WITHOUT GOSUB". Once I > F, the loop will be finished and the program will try to execute the next line AFTER 900, which now is line 5000. So we need this:

```
1000 end
```

The screen pause subroutine in this column and the one in the program from last month as almost the same; we will discuss the differences, along with yet another way to work the GET statement, next time. Happy Hacking!

Visicalc

A NEW DISCOVERY WITHIN VISICALC!!!

BY LEIGH WILSON

A WONDERFUL PIECE OF SERENDIPITY OCCURED WHILE 'HOSTING' AT THE CLUBHOUSE ONE AFTERNOON. KATHY RUDOVSKY, HAVING JUST BOUGHT THE NEW 'GRAPHTRAX-PLUS' FOR HER EPSON, CAME BY TO ASK SOME QUESTIONS. ON A RATHER OBSCURE PAGE OF THE NEW EPSON MANUAL WAS THE COMMENT THAT THE FOLLOWING COMMAND SEQUENCE WOULD ALLOW ONE TO ACTIVATE 'COMPRESSED MODE' OF THE EPSON DURING THE 'SET-UP' PHASE OF VISICALC ITSELF. THAT IS, YOU CAN GET 132 COLUMNS (SPACES) OF WIDTH FROM YOUR MX-80:

```
/P1<CR>                    (NORMAL 'I-WANTA-PRINT' COMMAND)
"CTRL-O <CR>               (THE LETTER, NOT A ZERO...)
-B12 <CR>  *               (PRINT TO POSITION 'B12')
        ( SEE NOTE BELOW )
```

WELL, THIS DIDN'T WORK WITH EITHER HER EPSON W/ APPLE INTERFACE CARD OR MY MX-80 WITH THE OLD GRAPHTRAX & AN ORANGE MICRO 'GRAPPLER'.

YOU MIGHT TRY THE ABOVE ON YOUR PRINTER; HOWEVER, ON MY SYSTEM:

```
/P1 (CR)        (P1 IMPLIES SLOT 1 FOR THE PRINTER.)
"^HOF           (SHIFT-N H(EX) ZERO F   --- NO SPACES!)   } ... AFTER SOME EXPERIMENTATION,
-K9 *           (THE POSITION, NOT THE 'CORPS'.)          }     TURNED OUT TO WORK JUST FINE !!!
```

YOU CAN GO BACK TO 'NORMAL' SIZE WITH "^H12<CR> LATER TO PRINT SOME OTHER PORTION OF YOUR SPREADSHEET.

NOW FOR A NICE DOUBLE-WIDE HEADING, YOU COULD >A1 * (GOTO A1) AND TURN ON YOUR PRINTER WITH:

```
/ P 1 <CR>
"^HOE <CR>        (SIMILAR TO 'PRINT CHR$(14)' IN BASIC MODE)
- F 1 <CR> *      (ONLY PRINTS ONE LINE IN CAPS, BEFORE THE
```

EPSON AUTOMATICALLY CANCELS EXPANDED MODE AT THE END OF THE LINE.

YOU CAN NOW MOVE YOUR CURSOR TO 'A2' WITH THE NORMAL '>A2' COMMAND AND PRINT THE REST OF YOUR SPREADSHEET IN SOME OTHER SIZE.

```
WITH "^H1B<CR>     (THAT'S HEX FOR AN 'ESCAPE' CHARACTER) FOLLOWED
 BY  "^H34<CR>     YOU TURN ITALICS ON ! ! !

AND  "^H1B<CR>
     "^H35<CR>     TURNS OFF THE ITALICS.
```

NOW W H E R E IS IT WRITTEN IN YOUR VISICALC MANUAL THAT YOU YOU CAN SEND MORE THAN ONE 'PRINTER SET-UP COMMAND' LINE THROUGH VISICALC WHEN SETTING UP YOUR PRINTER? IT MAY NOT BE TERRIBLY FAST, BUT IT MIGHT ADD A TOUCH OF CLASS TO YOUR VISICALC PRINTOUTS.

GET OUT SOME SCRATCH PAPER AND EXPERIMENT WITH Y O U R PRINTER. IF YOU DON'T HAVE GRAPHTRAX, CHECK OUT THE APPENDIX AND CHANGE 'CODES' ... GOOD LUCK AND HAVE FUN TRYING OUT THE POSSIBILITIES!

P.S. IF THIS LOOKS A LITTLE FUNNY, IT'S BECAUSE I USED VISICALC TO PRINT UP THIS ARTICLE. DEFINITELY N O T THE WORLD'S BEST WORD PROCESSER, BUT I WANTED TO DEMONSTRATE MY DISCOVERIES! IT WAS SET AT / G C 35 SO I COULD USE TWO COLUMNS AND SEE WHAT I WAS GOING TO GET ON THE PRINTED PAGE.

* NOTE: -B12, -K9, >A1, -F1 ARE JUST <u>EXAMPLES</u> OF THE ACTUAL VISICALC LINE YOU WISH TO PRINT TO.

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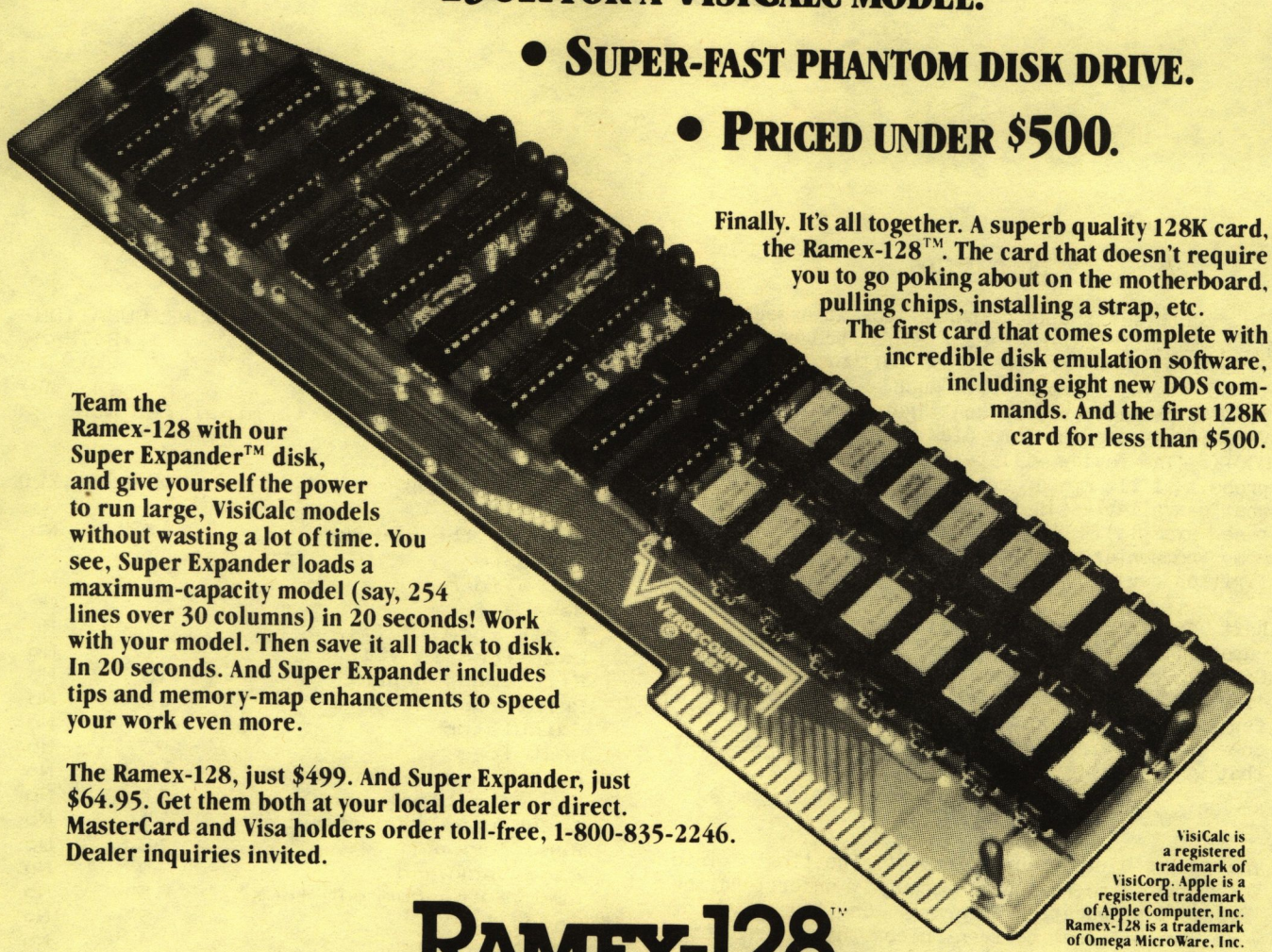

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VERSAFORM

Business Form Processor from Applied Software Technology

a review by Gene Wilson

INTRODUCTION

This month we'll take a 'hard' look at a series of programs called "VersaForm". This 'program' is so extensive that it resembles software found on larger 'mini' computers, such as IBM's System 34/CMAS package (but we won't get into that here). VersaForm runs a hard disk version that takes 800+K. The review will be more like a two-pronged probe. I'll spend most of my time looking at what's available (in the form of a 'working' data base example). Woody Liswood has also provided some commentary in the form of an independent 'written review'.

Next month I'll look into the 'hard-disk' capabilities in more detail (assuming that my Corvus controller has returned from the 'factory'—one of these months I'll have to say a few words about 'controller' cards that have only one chip on a 'socket' on the entire board--but that will wait)!

CONFIGURATION

The most important part of 'getting' into VersaForm is to read and thoroughly understand the 'System Configuration Program'. The true power of VersaForm will not be seen unless things are done correctly here. There are provisions for assigning 'key-activated commands' while in data entry mode, and terminal initialization sequences. The user can even have a 'standard' printer initialization sequence, but still have the option of entering a 'different' sequence at print time. This allows printing some reports in 'compressed' mode, while others can be in any other 'font' or 'size/style' available on the printer (or interface card). The Configuration 'File' is named BJTERM. BJTERM must be on every disk which will be used as a 'boot' disk (DESIGN, FILING, REPORT, and CPRINT).

SYSTEM CONFIGURATION
*BJTERM

Prefix code for this terminal is: NONE

COMMAND	CODE	PREFIXED
Display the cmd menu	63	No
Validate	3	No
Get a form	7	No
Save a form		No
First form in file		No
Last form in file		No
File space report	18	No
Print current form	16	No
Calculator	3	No
Next form	93	No
Back to previous form	2	No
Clear to blank form	17	No
Erase unvalidated data	5	No
Page forward	62	No
Page backward	60	No
Remove the current form	15	No
Index list	9	No
Delete a line	4	No
Cursor to command line	27	No
Quit - exit the program	25	No

Video reverse type : 0 (none)
Video reverse seq : NONE
Normal video seq : NONE
Terminal initialization seq: NONE

Printer page width default : 132
Printer page length default : 66

As important as the 'Configuration' process is, it's the LAST chapter in the User's Guide. (The Guide is a document that you should read one time then put it carefully away—far, far away.) There is a very good Tutorial Disk, a 'Hands-On Experience' Manual, and a very detailed 'Reference Summary'. Don't look for configuration information in the Manual or the Summary—it just isn't there!

PHILOSOPHY

This isn't a major problem. The whole series of programs called VersaForm are ALL set up with the 'non-computer-type' in mind. The menus are clear and usually concise. The decision process is straightforward, and there is ample opportunity (in most cases) to 'back out' of a bad decision. There need be no fear of making a mistake that can't be rectified without losing many hours of work. This quick experimentation can be a boon to the person who isn't entirely sure about the final 'look' or 'appearance' of a report.

```
Printer does not have form feed
Printer does take LF after CR
Printer initialization seq:   27  69
Operator will be asked for
printer control sequence.

Display dummy data character is "."
Printer dummy data character is "-"

Program volume names :
Vol name for Design pgm is DESIGN  .
Vol name for Filing pgm is FILING  .
Vol name for Report pgm is REPORT  .
Vol name for Copy/Prnt pgm is CPRINT  .
Vol name for Rptwrk disk is RPTWORK .

Default vol name for files is #5      .

Diagnostic mode is not set.
```

There are many other Data Base Programs on the market. VersaForm fills a particular function that lies somewhere between the very rigidly structured formats of DB Master, and the mind bending task of learning another 'language' with dBase II. The other programs are great, but only VersaForm has allowed me the freedom to take a 'quick shot' at form design or entry screen formats. If I don't like the end result, it only takes a couple of minutes to 'make it better'.

```
File #11:TRUCK

File size: 1040 storage units.
Minimum form size: 110 characters, 1 storage units.
Column line size: 0 characters
Estimated file capacity: 936 forms with no column lines.
```

DESIGNING THE FORM

This is the easiest part of the whole system. Simply decide what goes where, answer questions regarding range checking, length, justification, if item is mandatory, look-up table, calculations, and automatic filling, etc. The program will ask all the right questions, keep track of the answers, and even give the user hard copy of the whole session. Changes are easy to make, and the input 'mask' can be made quickly (changed, modified, or drastically altered just as quickly!).

```
& -- Any letter of the alphabet is OK
# -- Any digit (0-9) is OK
/ -- Optional leading digit ( 0-9 )
? -- Any character is OK

Any other characters mean that only
the particular character will be
accepted in that position.


Format &&------------------


This item: Job-----------------
```

```
Truck Ticket Entry Form:

                                                    Semi          10Whlr
Job -- Ticket # ------- Mo -- Day -- Truck # ------- Hrs1 ------- Hrs2 -------
Code -                                              Rate          Rate
       Owner ---------------- Driver ---------------- Tr#1   49.50 Tr#2   46.30
Gross Amt ----------                                Amt1 ------- Amt2 -------
Less Brok ----------
Less PUC. ----------
          ==========
Net Due.$ ----------
```

CHECKING AND AUTOMATIC FILLING

```
Minimum-length 1-    Maximum-length- 2-
Justify-(L/R/#) r    Selfchecking (Y) -
Numeric --- (Y) y    Date ------- (Y) -
Yes-or-no --(Y) -    Mandatory -- (Y) y
```

EXTENDED CHECKS

```
Ranges (Y) y         List (Y) -
Format (Y) -
```

AUTOMATIC FILLING

```
Lookup (Y) -          Todaysdate (Y) -
Calc - (Y) -       Column Total (Y) -

This item: Mo------------------
```

RANGE CHECKING

On each line type the limits of one range. Input will be OK if it falls in any one range. If you give only the low (high) value, any input higher (lower) will be accepted.

```
          Low value          High value
L#  L.                     H.
01  1-                     12

--
This item: Mo------------------
```

TABLE LOOKUP

The data for this item will be obtained by looking it up in the table below. The item to get the lookup value from is: Item name Truck-#----------

```
     Look up          Result
L# ....L.....  .......R.......
01 J-1-------  BIG-'J'-TRKG---
02 J-2-------  BIG-'J'-TRKG---
03 J-3-------  BIG-'J'-TRKG---
04 J-4-------  BIG-'J'-TRKG---
05 KB-1------  BISHOP---------
06 B-21------  BLANCHARD------
07 AC-1------  AL-CAIN--------
08 H-88------  CIRCLE-'H'-----
09 T-1-------  DAVID-ROGERS---
10 DDL-1-----  DDL-TRKG-------
11 DDL-6-----  DDL-TRKG-------
12 DDL-7-----  DDL-TRKG-------
13 H-10------  HIGDON---------
14 H-11------  HOSKINS--------
15 K-99------  P&K-TRKG-------
16 K-111-----  P&K-TRKG-------
17 R-15------  ROGERS---------
18 R-18------  ROGERS---------
19 R-83------  ROGERS---------
20 O-1-------  ROGERS---------
21 R-97------  ROGERS---------
22 505-------  TEDS-TRKG------
23 T-1-------  THOMAS---------
24 G-1-------  GORDON---------
25 G-2-------  GORDON---------

This item: Owner---------------
```

We see that the item MOnth has a minimum length of one numeric character, a max. limit of two, the number is right justified and it is mandatory (you can't leave the item blank and then save the record). Low acceptable value is 1 and high value is 12. Any number (or character entry) out of this range will not be accepted.

Table lookup shows that automatic filling of Owner and Driver are both tied to the truck number. In this data base, every truck number is unique. This saves a great deal of time if much of the data can be keyed to some common (but unique) item. If there are over 99 items, the lookup table is not going to provide you with a valuable service (a limitation!). The operator can enter a value different than the one provided by the lookup table.

The Net-Due item is calculated by the Gross-Amt less the Less-Brok item, less the Less-Puc item. Round off can be accomplished here as well. Dummy (intermediate) items can be set up to accomplish further manipulation of the data.

CALCULATION

The calculation may be made by adding, subtracting, multiplying, or dividing two items, or one item and a number.

Operations are +,-,*,/,Low(L),High(H)

```
Operations     Items/numbers
               I1: GROSS-AMT-----------
   OP1: -      I2: LESS-BROK-----------
   OP2: -      I3: LESS-PUC.-----------
   OP3: -      I4: ---------------------
   OP4: -      I5: ---------------------
   OP5: -      I6: ---------------------

This item: Net-Due.$-----------
```

```
     Look up          Result
L# ....L.....  ......R.......
01 J-1-------  BELL----------
02 J-2-------  CAMPBELL------
03 J-3-------  BREAD---------
04 J-4-------  LUCAS---------
05 KB-1------  KARL-BISHOP---
06 B-21------  L.-ANDERSON---
07 AC-1------  AL-CAIN-------
08 H-88------  J.-CHRIS------
09 T-1-------  D.-ROGERS-----
10 DDL-1-----  BULLOCK-------
11 DDL-6-----  W.-SMITH------
12 DDL-7-----  BULLOCK-------
13 H-10------  J.-HIGDON-----
14 H-11------  BEN-HOSKINS---
15 K-99------  K.E.-JOHNSON--
16 K-111-----  KINNARD-------
17 R-15------  R.T.-EDWARDS--
18 R-18------  B.-WELSCH-----
19 R-83------  SHELTON-------
20 O-1-------  O.-WEBB-------
21 R-97------  APARICIO------
22 505-------  T.-FORD-------
23 T-1-------  ROGER-THOMAS--
24 G-1-------  D.-MARSHALL---
25 G-2-------  V.R.-GORDON---

This item: Driver--------------
```

FILING

No secrets here. Hard work is the only answer. Just keep dumping data into the machine. The program will make things as tolerable as possible, and a lot of checking can be done to see that the data entry is done properly. Hard copy of the day's activity can be obtained as well. There is no reason to have faulty data if a reasonable system of checks is maintained. The data entry does not have to wait long periods while the screen reformats between records. The program is fast in this area and won't slow you down.

Truck Ticket Entry Form:

```
                                                    Semi          10Whlr
Job SA Ticket # 1359-- Mo -5 Day 16 Truck # 505---- Hrs1 --8.25 Hrs2 ------
Code B                                              Rate          Rate
       Owner TEDS-TRKG------ Driver T.-FORD-------- Tr#1  49.50 Tr#2  46.30
Gross Amt ---408.38                                 Amt1 408.38 Amt2 --0.00
Less Brok ----20.42
Less PUC. -----0.92
          =========
Net Due.$ ---387.04
```

1241	OWNER:	CIRCLE 'H'	SEMI:	6.00 @ 49.50 =	297.00	GROSS AMT:	297.00
JOB:SA	DRIVER:	J. CHRIS	10WL:	@ 49.50 =		LESS BROK:	14.85
5/10/	TRUCK#:	H-88				LESS PUC:	0.67
CODE:C						NET DUE: $	281.48
1359	OWNER:	TEDS TRKG	SEMI:	8.25 @ 49.50 =	408.38	GROSS AMT:	408.38
JOB:SA	DRIVER:	T. FORD	10WL:	@ 49.50 =	0.00	LESS BROK:	20.42
5/16/	TRUCK#:	505				LESS PUC:	0.92
CODE:B						NET DUE: $	387.04
1361	OWNER:	TEDS TRKG	SEMI:	3.00 @ 49.50 =	148.50	GROSS AMT:	148.50
JOB:SA	DRIVER:	T. FORD	10WL:	@ 49.50 =	0.00	LESS BROK:	7.43
5/17/	TRUCK#:	505				LESS PUC:	0.33
CODE:B						NET DUE: $	140.74
1945	OWNER:	HIGDON	SEMI:	7.75 @ 49.50 =	383.63	GROSS AMT:	383.63
JOB:SA	DRIVER:	J. HIGDON	10WL:	@ 49.50 =	0.00	LESS BROK:	19.18
5/30/	TRUCK#:	H-10				LESS PUC:	0.86
CODE:C						NET DUE: $	363.59
2175	OWNER:	ROGERS	SEMI:	4.50 @ 49.50 =	222.75	GROSS AMT:	222.75
JOB:SA	DRIVER:	SHELTON	10WL:	@ 49.50 =	0.00	LESS BROK:	11.14
5/11/	TRUCK#:	R-83				LESS PUC:	0.50
CODE:B						NET DUE: $	211.11
2187	OWNER:	GORDON	SEMI:	7.75 @ 49.50 =	383.63	GROSS AMT:	383.63
JOB:SA	DRIVER:	D. MARSHALL	10WL:	@ 49.50 =	0.00	LESS BROK:	19.18
5/15/	TRUCK#:	G-1				LESS PUC:	0.86
CODE:B						NET DUE: $	363.59
2188	OWNER:	GORDON	SEMI:	7.25 @ 49.50 =	358.88	GROSS AMT:	358.88
JOB:SA	DRIVER:	V.R. GORDON	10WL:	@ 49.50 =	0.00	LESS BROK:	17.94
5/30/	TRUCK#:	G-2				LESS PUC:	0.81
CODE:B						NET DUE: $	340.13

Da	Owner	Truck	Driver	Ticket	Hrs1	Hrs2	Gross Amt	Less Brok	Less PUC.	Net Due.$
	ROGERS				61.25	0	3031.90	151.60	6.82	2873.47
2	TEDS TRK6	505	T. FORD	2407	5.00		247.50	12.38	0.56	234.57
10	TEDS TRK6	505	T. FORD	2406	8.00		396.00	19.80	0.89	375.31
11	TEDS TRK6	505	T. FORD	2405	5.00		247.50	12.38	0.56	234.57
15	TEDS TRK6	505	T. FORD	2403	8.00		396.00	19.80	0.89	375.31
16	TEDS TRK6	505	T. FORD	1359	8.25		408.38	20.42	0.92	387.04
17	TEDS TRK6	505	T. FORD	1361	3.00		148.50	7.43	0.33	140.74
	TEDS TRK6				37.25	0	1843.88	92.21	4.15	1747.54
11	THOMAS TRK6	T-01	ROGER THOMAS	2559		4.75	219.93	11.00	0.49	208.44
	THOMAS TRK6				0	4.75	219.93	11.00	0.49	208.44
	REPORT CONTROL INSTRUCTIONS				351.25	10.25	17861.56	893.08	40.20	16928.28

FILE #11:TRUCK, REPORT TEMPT1

```
Page width 132
Page length 66
Title:
Print:
     Day
     Ticket #
     Owner
     Driver
     Truck #
     Hrs1
     Hrs2
     Gross Amt
Sort:
     Day                    ( ascending)
     Owner                  ( ascending)
     Truck #                ( ascending)
Subtotal control:
     Day
Total:
     Hrs1
     Hrs2
     Gross Amt
```

8/15/82

Da	Ticket	Owner	Driver	Truck	Hrs1	Hrs2	Gross Amt
			K.E. JOHNSON	K-99	6.25		309.38
					6.25	0	309.38
10	2554	BIG 'J' TRK6	CAMPBELL	J-2	7.50		371.25
10	2557	BLANCHARD	L. ANDERSON	B-21	1.00		49.50
10	1241	CIRCLE 'H'	J. CHRIS	H-88	6.00		297.00
10	3493	DDL TRK6	W. SMITH	DDL-6	7.75		383.63
10	2555	GORDON	V.R. GORDON	G-2	7.50		371.25
10	12174	ROGERS	SHELTON	R-83	8.25		408.38
10	2406	TEDS TRK6	T. FORD	505	8.00		396.00
10					46.00	0	2277.01
11	2504	AL CAIN	AL CAIN	AC-1	2.00		99.00
11	2558	BIG 'J' TRK6	CAMPBELL	J-2	4.75		235.13
11	2422	GORDON	D. MARSHALL	G-1	2.00		99.00
11	2175	ROGERS	SHELTON	R-83	4.50		222.75
11	2405	TEDS TRK6	T. FORD	505	5.00		247.50
11	2559	THOMAS TRK6	ROGER THOMAS	T-01		4.75	219.93
11					18.25	4.75	1123.31

```
01       1         2         3         4         5         6         7         8         9
02 456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789
03
04       1         2         3         4         5         6         7         8         9
05 456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789
06
```

```
******     OWNER:  *************** SEMI:   ****** @ 49.50 =   ******     GROSS AMT:*********
JOB:**     DRIVER:   ***************1OWL:   ****** @ 49.50 =   ******     LESS BROK:*********
**/**/     TRUCK#: ******                                                  LESS PUC: *********
                                                                           ==================
CODE:*                                                                     NET DUE: $*********
```

REPORTS

The standard reports are handled well. Simply move the cursor around the entry screen and indicate which items will be printed (and the order of printing). Subtotals, item totals, and sorting criteria are all established in a fast, straightforward manner. Changes are easily made.

The real challenge is to design a 'pre-printed' form, one which has very critical locations for data. The tools provided include a numeric scale and a 'dummy' record can be printed to the new form with data represented as '*'s. Maximum fields are laid out so no doubt exists as to what will appear. Text can be added to every printed form to further clarify the data that is output.

The whole idea of having a data base is to be able to store and manipulate the data. The report module allows the data to be displayed in almost any imaginable format, on pre-printed forms, in many different sorting orders, and different combinations of data can be readily compared.

SUMMARY

VersaForm is a valuable tool. While not capable of handling the 'huge' data base applications occasionally required, it DOES handle the bulk of jobs that exist. The program is fast, efficient, well written, and well executed. The User's Guide randomly seeks to provide information, and should only be used if all other means fail. The program will prove to be a real joy from the standpoint of just 'powering-up' and 'creating'. This is one of the few programs that deserves to be on every business user's shelf.

Versa Form

Business Forms Processor

Review (c) copyright by Woody Liswood 1982

Published by:

Applied Software Technology
15985 Greenwood Road
Monte Sereno, Ca. 95030

Systems:
Apple II and ///
Also Hard-Disk versions

VersaForm does just that. It creates, and lets you use almost any type of form that you might need. Invoices, packing slips, point-of-sale receipts, personnel records are all easy to create and use. The flexibility shown by the program also allows you to create "mini data management systems" (my quotes). However, before you jump into the data management area you should create and use a few form applications so that you are familiar with the way the program thinks.

VersaForm comes packaged in a box with a somewhat easy-to-read and use manual, very useful reference summary, a hands on experience book (which you should definitely do first) and six disks. Yep, 6 separate disks.

FEATURES

VersaForm is a PASCAL based system. It stores it's data as "forms" rather than what a data management system would call a record. These forms can have single items, such as name, date, address, etc. They also can have column data such as part number, description, etc. There is also the capability to have a data entry mask to check data as it is entered. You can require fields that must be filed in, have only numbers, dates, special formats such as phone numbers, specifically formatted numbers, social security numbers or special types of part numbers. You can also have a list of separate entries which can be allowed or you can specify a range for the entry value.

There is automatic calculation during data entry and printing. You can, for example, enter in a part number, VersaForm will then look up and enter in the description and the price, then multiply the price by the number purchased and put that in the cost column. Then, when that invoice is completed, it will automatically compute the tax and total the entire purchase and print the invoice for your customer.

Since this is PASCAL, VersaForm also works with your 80 column boards so that you can have what you see is what you get type of form to use.

According to the documentation (I did not test) it creates standard Apple Pascal files so that you can use your data in other programs.

EASE OF USE

I found the program rather easy to use. It, however, has so many features that you should spend a session or two with the manual, the hands-on-experience disk and try a thing or two, before you jump in and start a important application.

The only part of the program, in my opinion, which will cause some head-shaking is the report generator. That is not because it doesn't work, but because it gives you many, many options. And the Documentation does not always seem to be clear.

CRITICISMS

I could not find any problems with the program. No bombs, crashes or any of those things. When you use it to do forms, you will be very happy. When you use it as a data management system, you will need to be careful in your conceptualization otherwise you will find that it is not doing things just quite the way you expected.

My only criticism is that it does not do sub-total page breaks in the report writer. This made the program less that useful for creating reports when I was trying to use this as a data management system rather than a form generator. Otherwise, like I said, no problems.

DOCUMENTATION

The documentation is well written. It is, however, rather hard to find things in. Many important points are just kind of mentioned here and there. Things like maximum number of records, can the files span multiple disks, and other important goodies are not all in one place. The best way to approach this manual, is to read it once. Then sit down and go the examples in the manual while you are sitting at your computer. Make certain that you have a yellow high-liter and a pencil. You will need to make notes as to the features. And, since the instructions are scattered all over the place, you should hi-lite the commands with the yellow pen. Then, when you need to refer back to the manual you can find what you need. I didn't the first couple of times I used the program. And I wasted much time trying to find things. The problem is that this program has so many features, you will need to spend lots of time with it before you have memorized all of the commands.

HOW-IT-WORKS

The six disks which come with the system are:

1. Design program disk.
2. Filing program disk.
3. Report program disk.
4. Copy/Print program disk.
5. Tutorial disk.
6. Report work disk.

CREATING A FORM

The forms generator is a pleasure to use. You put the Forms design disk into the drive and a Pascal initialized disk into drive two and away you go. Only now you are using drives #4 and #5 because Pascal uses those external device names for the first two disk drives. If you need to, you will have to initialize some disks for use. There are specific instructions about how to do that so don't worry.

In fact, when you boot the forms design disk, you will be given a 4 item menu. Forms design, System configuration, Initialize diskettes or name diskette.

When you chose Forms Design, you go to another four item menu for copying an existing design, changing a existing form, designing a new form, or printing a form definition.

VersaForm will let you place Text or what they call Items anywhere you want on the screen. Text is the labels you have for your data fields. Items is the actual data field. You do your forms design by moving the cursor around the screen and typing letters and dots. The dots indicate a data field. Here's an example.

If you wanted a heading at the top of your page, you would cursor over and type in the heading. It could be your letter-head, or whatever.

Then, you might say:

NAME ..... Order# .....

The name is a label. Since there is only one space between name and the start of a row of dots, VersaForm will pick-out the dots as the data field to go with name. Order # is the same. There is 7 digit field for order number. Anyway, you cursor around the screen adding labels and dots. When you are done with the single field items you can confirm it. VersaForm will give you a chance to redesign, quit, or go to a help screen. However, after you have confirmed your form design, you are then asked if you want to enter columnar fields. That part goes rather easy also.

As you go through the program, you will find that there are menus available when you need them.

DATA CHECKING

There are lots of areas for data checking. Among other things, you can check for minimum and maximum length. Numbers can have + or - signs, You can not use $ signs or commas. You can use yes or no entries. Dates must be in m/d/yy, m-d-yy, or mm/dd/yyyy or mm-dd-yyyy. There are also mandatory fields.

USING THE FORMS

There are a number of commands which allow you flexibility in using the forms. You can go forward and backward through the forms. You can display a blank form, You can erase data back to the last time you validated the data. Data can be retrieved using information or keys. The form can be printed at any time.

REPORTS

The report writer is somewhat complicated. However, with some practice it should become rather easy to use. There is a lot of main-frame experience behind the report generator. The commands you use will give you the feeling of using a report written on many of the commercial time-sharing systems.

The Report format generator works by showing you the screen format you will be extracting data from and asking you to indicate which of the items you want printed on your report. That feature, to me, is very useful. Actually, you put the cursor in the field that you want on the report, then press an X. Then hit return and you will be asked to choose again. That's all there is to it. Nice-an-easy as they say.

After you have defined the report, you can select the conditions that you want to be met before a record is selected for the report. It's workings are somewhat elaborate, but it does work. What happens is that you are asked if you wish a conditional selection for the first item you selected. If you answer yes, you can have up to three levels on that item. For example, you could specify states equal to CA, AZ, and TX if you wished. The conditional operators you can have are equal to, not equal to, greater than, less than , less than or equal to, greater than or equal to, contains, and excludes.

When you finish the conditional selections, you must make decisions about sorting and totaling. If you wish to sort, you move the cursor to that field that you wish the sort to be done on, press X, then specify with a + for a low to high sort or a - for a high to low sort. Then you show what fields you wish to be totaled and/or subtotaled. (Remember you cannot specify subtotal page breaks).

After all that work, you are allowed to store that report format file on the disk so that you don't have to go through it again.

SUMMARY

This is a multi-purpose program. It's uses are limited only by your creativity. It does so many different things, that a simple review can not give the proper credit to its usefulness, versatility, and flexibility.

Cider Press Cover-Up
by Gene Wilson

Our 'Cover' contest continues, and our September entry is from Sean Adams (San Rafael, CA.).

Sean joins Jim Linhart and Lora Asdorian in that select circle of "artists" whose contributions have adorned the cover of the "Cider Press".

NOW is the time....to get the paper and ideas into some readable shape. The competition is tough. We are open to new concepts and suggestions. I can already see that 'computer people' are a creative group--let's see more ideas on our cover!

Pascal

==========

Four (or more) Ways to Do the Same Thing

or

You can't get there from here!

==========

by

M. Joseph Schaller

One of the things that I would sometimes like to be able to do in Pascal is to talk to my printer and my 80-column card in a language that they understand, but that the Pascal Editor apparently doesn't.

As you probably know if you've tried it, the Editor doesn't like to insert control characters in the text for you. It quietly translates them all to "?" (doesn't even beep!) and let's it go at that. Reasonable enough, since most of the control characters have some meaning to the Editor. But unreasonable since nearly every printer and 80-column card manufacturer seems to have settled on the control characters as the ways to talk to their respective devices. Which is also reasonable, because these machines are designed to deal with normal characters, so the "unprintable" (unmentionable?) characters are obviously the ones left over to do your commands with. Worse yet, since I got Graftrax for my Epson MX-80, it wants me to pass <esc> to it as well. Clearly I can't insert <esc> in my text, because that is, after all, the way you tell the Editor to 'forget it'.

Well, I talked to my friends, and they advised me to forget it too. "Can't be done." "Buy a program to control your printer." "How about Wordstar?" I decided that by the time I made that investment (cost of WordStar plus the CP/M board, and I don't even like CP/M), I might as well have bought a new machine. Anyway, I wanted to be able to use Pascal, have my files be compatible with Pascal...and so on. When I first started trying to solve the problem, I couldn't find anything on the market that was compatible with Pascal. So I wrote my own. Didn't take that long, actually. Most word processing functions are in the Editor, if you have sense enough to study the manual and fool around.

So now I had a simple formatter that I could use to 'post-process' my Pascal Editor files, put headers on, count the lines to the page, and so on. I wrote it so that embedding a #b, for example, in the text, would turn boldfacing on and off, #c for condensed, and so on; and in the program itself by simply doing a

```
write (chr (whatever));
```

to the printer, I could pass any character I wanted.

Well, that was one way.

Then I was working with someone else's 80-column board, and the manual suggested that passing characters could be accomplished by doing a file transfer. I have played with this lots and it has some real advantages. You can do it quickly and simply, with no bother of writing a program. Thus,

```
FTconsole:,printer:
<ctrl-O>
<ctrl-C>
```

will cause my Epson to print everything from then on in condensed print, great for compiler listings or anything bigger than 80-columns. If I type

```
FTconsole:,condense.print
<ctrl-O>
<ctrl-C>
```

then the commands for producing condensed typefont are stored in a one-block long file called condense.print, so I can then

```
FTcondense.print,printer:
```

any time I want. [I am, by the way, using longer names than I might want to for clarity's sake here.] I have a whole set of these now, so that I can change the printer to any font I want, as long as I am free to use the Filer to transfer the commands. Unfortunately, that doesn't solve my problem with the Editor (or does it?), because I usually don't want to condense or expand or bold-face, or whatever, the whole file, right?

Well, then it hit me that I could use the Editor to Copy File these files that I had created in the Filer into my text. I had to make them text files, so that the Editor could find the text in them; otherwise it tried to read my one-block files, skipped the first two blocks (whoa!!) and found nothing. That meant using four blocks for every font, because that's the minimum textfile size. Wait a minute, I'm not willing to give up that much space. Then I put them all in one file, marked them with markers, front and end, and them pull them in by saying

```
CFfonts[boldon,boldonend]
```

and or

```
CFfonts[boldoff,boldoffend]
```

to turn it off. With a sophisticated Pascal post-processor like "Prose" you can put them in .LITERAL commands and include them again, by copying, and have them marked and labelled as well.

I think we're up to three ways now.

The fourth way is even more interesting to me, because I can do it in the main environment in which I spend 80% of my Pascal time, the Editor.

My 80-column board, the Smarterm, has a number of unique and useful features. In addition to upper/lower case, a special screen graphics set, ability to switch between the 40- and 80-column screen by keystroke or program control, it has two features that most other cards don't have. One is Inverse mode, without adding any extra chips; the other is what's called Verbatim mode, which means that all control characters are made visible on the screen as they are transmitted. This is very useful to me for seeing exactly what my program is putting out, seeing exactly what is in the text file I am editing, seeing what a data file actually looks like, etc. and finding anything that's in a character array that I didn't know was there.

The fourth technique came about because I wanted to be able to see the embedded control characters in my file, and because I wanted to be able to turn Inverse mode on and off without having to leave the Editor first. And it can be done. Here's how.

You can pass any character that the Editor will reject to a text file or to your 80-column card thru the Find or the Replace commands. These are, as far as I know, the only "loopholes" in the Editor thru which you can stick this stuff. I can say

F/<ctrl-O>/

to the Editor and it will try to find a <ctrl-O> in my text, fail, and tell me error: not in file. However, when I hit <return> as requested, my screen is now in Inverse mode. For my card, doing a

F/<ctrl-N>/

restores Normal mode.

F/<ctrl-T>C1/

changes my cursor mode,

F/<ctrl-T>B1/

lets me look at the 40-column screen (which could even be displaying Pascal graphics left over from a program), and so on. I know the <ctrl-T> keys work on the Sup'R'Term too. You can try others as well. Some are obviously useful, some are not. The other way you can use this fourth technique, of course, is to Replace something. Thus you could put a .b+ wherever you wanted bold-face initiated, and then

/R/.b+//<whatever your code should be>/

and you would have the bold-codes inserted thruout your document. One problem is that invisible characters are just that, invisible, so if you later try to edit that document, you won't be seeing the actual line. Be careful of that!

In any case, if you have a need to insert any of these kinds of characters, this is a way to do it. A limitation of Method 4, as it will soon be known around the world, is that you can't put <esc> in. But you can put that character in a file using the Filer and then Copy it in. So with the combination of techniques, you can accomplish anything you want.

Of course, the reaction of some of my friends to all this is, "See? We told you you should have just bought a program to do it!" Oh well.

Finally, there's the "or more" part of the title. As I was telling a friend about this article, she started guessing what the ways were, and the first guess was something else I hadn't even thought of: You could create an exec using the Make command, and then just type in whatever characters you wanted. The exec utility accepts anything and stores it literally (including mistakes and backups) and puts it in a form that can be more or less read by the Editor. Just erase the percent signs. And be careful what you put in it, unless you have the equivalent of a Verbatim mode to examine the file with.

I suppose there are other ways as well. I'd like to hear about them if you want to write. Maybe my friends are right: but at least now I know you can get there from here.

RESURRECTION
(or "Pascal ain't gone yet!")

by

Gene Wilson (and a bunch of help from my friends)

Well, the reports (from a former Pascal Editor) several months ago spoke of the demise of the SFAC's Pascal Interest Group. (Lack of interest?) No articles appeared in last month's Cider Press—the Pascal column did in fact appear to have gone into the 'big bit-bucket' in the sky.

I'm proud to announce that although the Interest Group is gone, there is still interest—Lots of interest. Max Nareff hasn't given up, and this month's offering includes many 'procedures' which can be added to your programs via the Editor's Copy function.

Joseph Schaller explores some interesting territory as well in "Four (or more) Ways to Do the Same Thing, or ...."

Keep the articles coming. As you can see, there is still activity on this front!

```
(*PRODUCES INVERSE LETTERS                    *)
PSEUDO-UPPER CASE
VARS REQUIRED=
     NORMAL, INVERSE : INTEGER;
DEFINITIONS =
     INVERSE := CHR (18);   (*CNTRL/R*)
     NORMAL  := CHR (20);   (*CNTRL/T*)
EXAMPLE =
     WRITELN (INVERSE, 'THIS IS INVERSE');
     WRITELN (NORMAL, 'RETURN TO NORMAL')
```

```
(*AN ERROR-PROOF METHOD OF INTEGER INPUT*)
(*CONVERTS NUMERICAL STRING TO INTEGER*)

FUNCTION INTINPUT (VAR NAME : STRING)
                                : INTEGER;
VAR
   I, NUMBER : INTEGER;
BEGIN
   NUMBER := 0;
   FOR I := 1 TO LENGTH (NAME) DO
     IF (NAME[I] IN ['0'..'9']) THEN
       NUMBER := NUMBER*10 + ORD(NAME[I])
                           - ORD(0);
   INTINPUT := NUMBER
END;

(*EXAMPLE= WRITELN ('ENTER INTEGER);
           READLN (STR);
           PRICE := INTINPUT (STR);
           WRITELN ('COST = ',PRICE*2);*)
```

```
(*A SIMPLE DELAY PROCEDURE                    *)

PROCEDURE DELAY (X:INTEGER);
VAR
   I : INTEGER;
BEGIN
   FOR I := 1 TO X DO
END; (*DELAY*)

(*EXAMPLE=
     DELAY (500)   = 0.5 SEC.
     DELAY (1000)  = 0.9 SEC.
     DELAY (2000)  = 1.5 SEC.
     DELAY (4000)  = 2.7 SEC.
     DELAY (10000)= 6.4 SEC.    *)
```

```
(*A TAB FUNCTION.                             *)

FUNCTION TAB (X:INTEGER):CHAR;
VAR
   I : INTEGER;
BEGIN
   FOR I := 1 TO X-1 DO
      WRITE (' ')
   TAB := CHR (15) (*A DUMMY CHAR*)
END; (*TAB*)

(* EXAMPLE=
     WRITELN (TAB(10),'BEGINS IN 10TH COL');*)
```

```
(*FOR ERROR-FREE CHAR INPUT                   *)
(*REQUIRES <RET> TO TERMINATE INPUT           *)

PROCEDURE CHARINPUT;
VAR
   CH : CHAR;
BEGIN
   READ (CH);
   WHILE NOT EOLN DO
      BEGIN
         IF NOT (CH IN ['A'..'Z'] THEN
            WRITE (CHR(8),' ',CHR(8)) (*BACKSPACES*)
         READ (CH)
      END
END; (*CHARINPUT*)
```

```
(*FOR ORDERLY OUTPUT.                         *)

PROCEDURE FIELDTAB;
VAR
   I   : INTEGER;
   STR : STRING;
BEGIN
   FOR I := 1 TO YOUR NUMBER DO
      BEGIN
         READLN (STR);
         WRITELN (STR,I:(20-LENGTH(STR))
      END
END;
```

```
(*A CENTERING ROUTINE                         *)

(*ROUTINE FOR CENTERING OUTPUT*)
   FUNCTION SITE : INTEGER;
   CONST
      WIDTH = 40;
   VAR
      S : STRING;
      X, T, I : INTEGER;

   BEGIN
      T := LENGTH (S);
      I := WIDTH - T; (*REMAINING WIDTH*)
      SITE := I DIV 2
   END; (*SITE*)

(* EXAMPLE =
      READLN (S);
      WRITELN (S:SITE+T);
         OR
      READLN (S);
      GOTOXY (SITE,Y);
      WRITELN (S);          *)
```

```
(*A CENTERING PROCEDURE                       *)

PROCEDURE CENTER (VAR S:STRING);
CONST
   SPACE = ' ';
VAR
   I : INTEGER;
BEGIN
   FOR I := 0 TO (38-LENGTH(S)) DIV 2 DO
      S := CONCAT (SPACE,S)
END;
```

```
(*EXAMPLE =
    READLN (STR);
    CENTER (STR);
    WRITELN (STR);       *)
```

```
PROCEDURE INPUTFILE;
(*FOR CORRECT FILENAME INPUT              *)
(*ADAPTED FROM "FORMATSTUF",RON KENNEDY*)
(*TAMPA APPLE GROUPIES.                   *)
(*MODIFIED AND PREPARED BY MAX J.NAREFF*)

VAR
   FILENAME   : STRING[30];
   ERROR      : STRING;
   SUCCESSFUL : BOOLEAN;
   I, K,
   IOCHECK    : INTEGER;

BEGIN
   K := 1; (*COUNTS ERRORS:IF 2 QUIT*)
   REPEAT
      IF (K>2) THEN
         BEGIN
            WRITELN
(' TWO I/O ERRORS-BEST TO QUIT & RESTART.');
            EXIT (PROGRAM)
         END;
      WRITELN;WRITELN
('ENTER-VOL:FILENAME-OF THE FILE TO BE');
      WRITELN ('READ.');
      WRITE (' ':15);
      READLN (FILENAME);
      IF POS('.TEXT',FILENAME)=0 THEN
        FILENAME := CONCAT(FILENAME,'.TEXT');

        (*$I-*)  (*AUTO IO CHECK OFF*)
      SUCCESSFUL := FALSE;
      RESET (F, FILENAME);

      IOCHECK := IORESULT;
      IF (IOCHECK = 0) THEN
        SUCCESSFUL := TRUE
      ELSE
        BEGIN
          ERROR := 'ERROR IN FILENAME OR DISK DRIVE';

          CASE IOCHECK OF
            2 :  ERROR := 'ILLEGAL VOLUME NUMBER';
            3 :  ERROR := 'ILLEGAL I/O REQUEST';
            5,
            9 :  ERROR := 'DISK DRIVE NOT ON LINE';
            7 :  ERROR := 'ILLEGAL FILE NAME';
            8 :  ERROR := 'NO ROOM ON VOLUME';
            10 : ERROR := 'FILE NOT ON DISK';
            12 : ERROR := 'FILE ALREADY OPEN';
            13 : ERROR := 'FILE NOT OPEN'
          END; (*CASE*)

          WRITELN (CHR(7),CHR(7),CHR(7));
          WRITELN
       ('I/O ERROR CODE # ':18,IOCHECK,' USE CORRECT INPUT');
          WRITELN (ERROR:30);
          K := K + 1;
       (*$I+*)
          FOR I := 1 TO 1000 DO;
          PAGE (OUTPUT)
        END (*ELSE*)
   UNTIL (SUCCESSFUL)
END; (*INPUTFILE*)
```

```
(*INPUT PROMPT                          *)

PROCEDURE PROMPTAT(L:INTEGER;S:STRING);
BEGIN
   GOTOXY (0,L);
   WRITE (S, CHR(29))  (*CHR(29)-ERASE TO END OF LINE*)
END; (*PROMPTAT*)

(*EXAMPLE =
    PROMPTAT(11,'ENTER YOUR NAME');
```

```
(*AN INPUT PROMPT FUNCTION              *)

FUNCTION PROMPT (S:STRING):INTEGER;
VAR
   RESPONSE : INTEGER;
BEGIN
   WRITE (S:12,'>> ');
   READLN (RESPONSE);
   PROMPT := RESPONSE
END; (*PROMPT*)

(* EXAMPLE =
      PRICE := PROMPT ('ENTER COST');
      ITEMS := PROMPT ('HOW MANY?');
      TOTALS:= PRICE * ITEMS;          *)
```

```
(*A TAB PROCEDURE                       *)

PROCEDURE HTAB (X:INTEGER);
CONST
   SPACE = ' ';
VAR
   I : INTEGER;
BEGIN
   FOR I := 1 TO X DO
      WRITE (SPACE)
END; (*HTAB*)

(*EXAMPLE =
    PROCEDURE A;
    HTAB (20);
    WRITELN ('INDENTED');    *)
```

Reviews

APPLE WRITER EXTENDED, a review
(c) by Joyce Conklin, 1982

Brillig Systems Inc.
10270 Fern Pool Ct.
Burke, VA 22015
List: $34.95

For someone who writes papers to be read by students, it is often necessary to accent certain words to make sure they will be read, but capitalizing soon loses its punch. I was looking for something that would extend my Apple Writer 1.0 without eating an elephant-sized hole in my pocketbook.
This one does it, and furthermore, allows me to keep my Apple Writer files without the necessity of "updating" or completely rewriting all of them (and there are a lot of them after a year of putting everything on disk so that editing is easier than scraping off purple ink from the back of a ditto master!

In addition to the good points of the software, and there are many, the support I have received while learning the fine points and the peculiarities of my printer is nothing short of phenominal. Because of the 3-hour time difference it is possible to call before 8:00 a.m. our time and get help. If Paul (Malichowski, the author) couldn't help me right then, he would call back later with the answer. I always knew when he had called because rewinding my answering machine took longer than usual! He was even willing to spend almost a half-hour on the phone trouble-shooting the printer problem referred to above. (The solution was offered by another author in San Diego, who is a hot-shot on the Epson printerS.)
The Apple Writer Extended software is not protected and is therefore fully listable and modifiable, a feature which I will use in the MASSMAIL program (see below). The new generation of authors seems to be more trusting (Mark Pelczarski, Link Systems, et. al.) and maybe the problem of "pirated" software will go away of its own accord -- trust breeds trust, we can always hope.

The first item in the documentation (standard Apple manual size) is the direction to make a working copy of the utility disk. It turns out that the "utility disk" is THE disk which comes with your program; this can be copied using either FID or COPYA on your System Master diskette. It's easier to use COPYA as you will want a back-up copy anyway. You are then told to copy three files from your regular Apple Writer disk (using FID) which will then make your working copy of Apple Writer Extended into a full-fledged Apple Writer disk. If you're using Apple Writer 1.0 as I am, and wish the disk to boot in the usual manner, then you should also copy the HELLO program from the original Apple Writer disk.

The next set of directions is to unlock and rename some of the files on the working disk. (From now on, all refernce to "disk" will mean the working disk, you should already have put the original and any back-up copies away.) You need to know which of your files are locked and which are not, as you may get error messages if you follow the documentation exactly as it is in the copy which I have. My understanding is that this has been remedied in later printings, but I have not seen a copy. There are instructions on how to change your print constants if your printer interface is in a non-standard slot (other than #1). Some of the documentation uses jargon (such as "special command sentinals") which are somewhat confusing to non-technicians, and there are examples but not full-fledged tutorials. This lack, NOT unusual in the business, is the major defect in this program, and one which can be overcome with a little persistance and some willingness to hack away.

With Apple Writer Extended, you when you print and A-W file, a shift-N will print as a single underline character; an inverse shift-N (ESC, shift-N) will print as a vertical line. This latter character appears on your screen as an inverse carat (the one above the N on your keyboard) but will print out as the vertical line - acutally two half-space vertical lines. There is a comment in the manual that "these two characters can be useful to produce special forms." Since even A-W Extended does not have 80-column screen capability, I would think that it would require a lot of pre-planning to get all thes lines in the right places! For my work at school, I usually circumvent this probelms by making a single copy on my printer without the special lines, add them in by hand, and then reproduce the final copies on a copy machine! Since I don't have much need for a form which can be filled in with various values, this method is much faster. Your situation may be different however, so be aware that the capability is there.

Hex characters are those which are usually used as printer control codes, and this is the feature of Apple Writer Extended which I was most anxious to implement in my school work. I can now emphasize words by using italic type or emphasized or even, in unusual circumstances, double width. There are a couple of real problems with this feature, not so much in the program itself but in the documentation. You are told that "The high order bit must be on". Does that mean that you put the bridle higher on the horse's head? No, it means

that when you send a hex code you must add 8 to the first digit. The hex codes are in Appendix K of the Applesoft Programming Reference Manual. If your printer requires the use of control-Q for some print feature, the hex code listed in the manual is 11. However, in imbedding this code in your text with Apple Writer Extended you need to record it as 91. The other problem is that, although there are a LARGE number of Apple users with Epson printers, those who do not have the Graftrax option (either one) cannot use this feature because of the inability of the printer to turn these print features on and off in one line; also, if you put the code at the end of the line, it will operate on the words preceding it on the same line! Very annoying, but once I found that it was a "deficiency" in the printer, I knew it was just a matter of time until I could utilize this feature as I wished. (Now, if I could sell this review, I could finance the Graftrax and....)

Sometimes in using the fill-justify mode, which lines up both left and right margins, you get some rather funny-looking spacing in between the edges. Apple-Writer Extended will allow you to control the number of spaces between two words. It also supports underlining, IF your printer will do so. (Epson with Graftrax will, without,... well you know the story!)

It is possible to convert Apple Writer files to text files and vice versa. If you don't have a good editor program (see the review on Global Program Line Editor in the August Cider Press) then this is a way to compensate. The editing features of Apple Writer make it easier to make changes and corrections in your program, than by using what editing abilities are built into your Apple. I used Apple Writer to write the program which was included in one of my BASIC columns which allowed specifying the width of the print line along with the editing features. You can also create documentation with Apple Writer and then change it to a text file which can be "exec'd" from the program by anyone, not just someone with Apple Writer.

The next feature is that of creating form letters. In my case, I wanted to create a note that would tell each student exactly what assignments were still missing, how many additional points could have been made IF they had done the work, and the absolute deadline for turning in the work. As it stands on the disk, there is an automatic line feed at the end of the letter, which uses up far more paper than I needed for the notes. Because the program is not protected, you can change the line from CHR$(12) -- Form Feed -- to however many lines you want between each note. Actually, what you need to do is to redefine the length of your form from the usual default of 66 to whatever you need. In using this feature it is VERY IMPORTANT to remember to close your file with "CY"; otherwise the file remains open when you save it to disk with all sorts of unpredictable results. You can merge your form letter with a file of data to fill in the variables in your letter. Again, it is vital that you close this file (this time with "N") or all sorts of weird things happen.

There are a couple of other "goodies" at the end of the manual. One routine allows you to use your "0" paddle to scroll Apple Writer files. Full counterclockwise turn makes the listing excruciatingly slow, but if imitating the Times Square bulletin in your thing, then this will do it. At the opposite end of the paddle resistance, the scrolling speed (one character at a time, incidentally, not a line at a time) is O.K.; ¶almost¶ a line at a time. You can stop/start the listing at any point by using the button. And if you find that you made an error, pressing <ESC> will allow you to edit your error. However, it would be much easier to check and edit any errors while you are in the original Apple Writer mode, as pressing <ESC> requires you to boot up the editor program, meaning you can't edit and then scroll some more. There is also no provision for loading the scrolling program from D1 and the Apple Writer file from D2 - you have to swap disks all the time. All told, this particular routine does not seem to hold much promise. The final extra is a subroutine which you can insert in any Applesoft program which will allow you to prevent the user from resetting out of the program. Shades of Cattlecar Galactica!

SUMMARY: This set of programs is really worth while if you are using Apple Writer 1.0 or 1.1. With a minimum of extra effort and cost, you can take advantage of the different print capabilities of your printer, you have expanded your set of available characters, albeit only by two, and you've saved all that work of updating your Apple Writer files. This last feature is paramount in my consideration. It takes some dedicated study to learn the ins and outs of the program, due to the lack of real tutorials in the documentation. Those of you who are already using Apple Writer are aware that it is a text editor, not a word processor, so "what-you-see-is-what-you-get" screen formatting is not possible. But all things consedered, I believe this program is well worth the investment for expanding your Apple Writer capabilities without undue expense.

FILE WHIZ
INFORMATION MANAGEMENT SYSTEM
Copyright 1981 by Stephen C. Goss
Published by SoftHouse
P.O.Box 6383
Rochester, MN 55903

Reviewed by Jackie Porter

FileWhiz is a data file management system priced at $61, including shipping. Designed expressly for home and small business use, it requires a 48K APPLEII or II PLUS with Applesoft in ROM and a disk drive operating under DOS 3.2 or 3.3. A printer is not required but "some are supported" (it looks as if most standard parallel-interfaced printers for the APPLE II's would work o.k.).

FileWhiz is self-loading and allows you to access DOS to see a catalog. The disk sent to Cider Press for review is in 3.2 but can be muffined to 3.3. The main program in the set of programs which makes up FileWhiz is in Applesoft and can be listed.

The documentation is concise and thorough. It steps you through the major features of the program with good examples of their use. Error trapping and error messages are both excellent. All the features work well.

The main difference between FileWhiz and most of the data management systems currently available for 4 to 6 times this price is that it is limited to somewhat smaller files for diskette storage than is the case with the more expensive packages. More about file size later.

Another difference between FileWhiz and most of the larger data management systems is that FileWhiz is command-driven rather than menu-driven. Reminder menus are accessible at any time through a "help" command, but to use FileWhiz effectively you will need to practice the command sets. The program is divided into several modes with command subsets for each mode.The subsets are relatively small and easy to master, and the back cover of the manual is a one-page reference card for all the modes and their commands.

One advantage of a command-driven program is the ability to move from one mode to another without going out to a main menu. FileWhiz also gives you the capacity to execute multiple commands. Its commands are easy to cancel if you key in a command incorrectly or change your mind. With a little practice building a file or two, you should be fairly comfortable with the mode and command characters.

The FILE MODE (F) manages the files you create, with 5 subcommands, Create, Load, Merge, Save and Delete. (The sub-commands here are C, L, M, S, and D, respectively.) The SUBFILE MODE enables you to extract parts of a file you have already created for a new file that can be saved permanently. Here several of the mnemonic command characters that were used in File Mode reappear, Create, Save, etc. An ARITHMETIC MODE allows you to Add or Subtract any numeric field in any file or subfile. The TEXT MODE sets printer headings and field titles for reports, and an OPERATOR MODE reports system status, initializes diskettes, etc.

The EDIT MODE completes the command set. The editor uses two main types of commands, the edit features themselves and a set of display and support features. The edit features include "adding records" (i.e. entering records), changing records or field attributes, and erasing records, subfiles, or non-subfile records. A simple sort feature sorts any field in any file, alphabetically or numerically (in ascending order only), whichever is appropriate to that field. Thus, having loaded an existing file, the command string
.E SN3 (Return)
tells the system to enter Edit mode and Sort Numerically the contents of field 3. If field 3 in this example is a date field, you have just put your data into chronological order. You might now wish to extract all entries for a particular month (use subfile creation for this), and manipulate the selected data in some other way. Note that both loading the original file and creating the subfile could have been incorporated into the multiple command given above.

The other part of the editor is the set of display and locator commands. The FileWhiz editor uses a "current record pointer" to position you for editing a file. That is, you direct the record pointer to the top of the file, down n lines, across, in reverse, etc. depending on your current record position. This is done with pointer commands instead of a moving cursor. Those who have used a record-pointing editor before will find that FileWhiz commands differ somewhat from some of the standard pointer-editors around, but they are mnemonic and fairly obvious, for example, B for beginning of file, L for locate. If you have not used the pointer method before you will need to practice with it, but most users should like it for its flexibility and speed.

As with most data management systems, for the best use of the system you should plan the layout of a file before creating it. However, FileWhiz is flexible enough for you to recover from poor planning. I set up a sample file without planning it and could tell within about three record entries that I needed to add another field. At that point it was a simple matter to add a field, go back and add the field data for the three incomplete records and go on with a correctly "designed" file.

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Santa Clara, CA 95050

However you will need to plan your file size and layout carefully if you are working at the upper limits of the system's size. FileWhiz is initially configured to handle up to 200 records, each with up to 8 fields, but it can be reconfigured in different sizes using a reconfiguration command in the operator mode. The more carefully you plan your file size, the more efficient the storage. For example, you can enter 250 records if the fields are limited to only 5 per record. If you are sure you will not need to add a field later, you would reconfigure for 250 records of 5 fields and increase the record capacity of your file by 25%.

With one other feature the system can be considerably expanded. The manual provides sample Applesoft BASIC programs which can read the data files and use them in an application. This worked quite well. I tried it with the creation of two separate mailing address files and a BASIC program to print them. The BASIC program was simple and quick to put up. If you initialize a work diskette in the FileWhiz operator mode you can store the application program and the data files on the same disk and be ready to run the application using just the one diskette -- an efficient solution to the problem of file size even for a medium sized business if there is no objection to separating records into several files of 200 or so entries. PASCAL application programs can be developed in the same way with FileWhiz files.

To sum up, this is a remarkably powerful package for its size, and I recommend it for anyone who wants a flexible, small data management system for a variety of home or small business uses such as customer records, bookkeeping, invoicing, mailing labels, and budget. A number of its features, such as the record-pointing editor and the command-driven modules, are sufficiently powerful and speedy to repay the time you must spend to become an efficient user of the system, and the price is right.

THE COMPLETE GRAPHICS SYSTEM
Copyright 1981 by Mark Pelczarski
CO-OP (PENGUIN) SOFTWARE
P.O. BOX 432
WEST CHICAGO, ILLINOIS 60185
$59.95

Requires disk, 48K, and Applesoft firmware or the language system. Specify DOS 3.2 or 3.3.

Reviewed by Bill Porter

CGS has six programs, Drawing module, 3-D Graphics module, Text module, Shape Table module, Panel utility, and Shrink Picture utility. You have over a hundred colors to work with (typing 'P' for palette will let you view all 108 colors before choosing one). When you first boot up it is suggested that you hit 'C' (color bar) from the main menu in order to adjust your color CRT or color T.V in the six primary colors. In all the modes you have four lines of text at the bottom of the screen with menu options and information.

DRAWING MODULE

In the DRAWING MODE you can load or save a picture, clear the screen and draw (L,S,C,D), LOAD SHAPE TABLE (T), RETURN TO MENU (M). Clearing the screen requires 'Y' or 'N' to verify. Concerning commands, there are 124 options, one stroke single letter/number-type. But not to worry, Manual Appendix D, Reference Guide to Options lists them all. More about the documentation later.

Drawing is done with two cursors, one stationary, the other moveable. A number of graphics packages use this method and it looks like it may turn out to be the standard. It's a great way to draw a picture. You can change lines to your heart's content.

This module has two fill modes, AUTO and MANUAL. In Manual mode you only get the use of seven colors, Auto gives you the full 108. It may take two or three tries to fill an enclosed area and even then you can't be sure but with a little work in the Brush option ('B') any vacancies can be filled in.

BRUSH OPTION.

There are nine "brushes" that are built into the system. Hitting 'B' then a number from 0 to 8 will give you anything from a brush that's a dot to

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what's called an "airbrush". You can add to, delete or change brushes without much difficulty.

A feature that's not listed in the manual is the 'R' (arc option) and 'E' for (ellipse). I made a number of circles using 'R' and 'E' then used the fill mode and got some interesting results. The circles are made with a series of dots using the stationary cursor as the center of the circle. The distance between the dots is controlled by the paddle. Then I went into 'A' (auto fill). Part of the circle filled. The color then made its way between the dots making lines to the edge of the screen. Since you can change color at any time, I enjoyed the effect.

TEXT MODULE

The text module allows you to type characters directly from the keyboard onto the pictures you created in the drawing mode using large, twice normal size, or small print. Escape toggles upper, lower case and special characters. Hit Escape twice in order to view full screen. The cursor is positioned by the paddles. Press button 1 and you're ready to add text to your pictures. The button on paddle 0 allows you to "insert a single command while still in the typing mode." This comes in handy if you want to change size of print, change color, etc. With large size text you can use all 108 colors, normal text is white only. 'P' for palette can be used in this mode.

Three interesting commands are 'D' DESTRUCTIVE, 'N' NON-DESTRUCTIVE, and 'R' REVERSE. Destruct "is the only mode that creates its own background." It will replace any character you type over. Non-Destruct will not destroy the background; if you type over a character you make a mess of both characters. Reverse reverses the background and foreground colors. Non-destruct and Reverse modes "depend on the background color and the text color; generally you'll get better results with colors close to the primary Apple colors."

3-D GRAPHIC MODULE

This module uses X,Y,Z Cartesian coordinates. The manual gives you a short, clear description of Cartesian coordinates with an example of making a cube. You have nine options to choose from on the 3-D option page. After you load (L) a figure you can view (V) it, then you can rotate (R) it, move (M) it, scale (S) it, and/or distort (D) it. If it's still not pleasing to the eye option (E) lets you edit it. In the edit mode an inverse point appears as the cursor. The arrow keys move the cursor from point to point and the space bar is used to change direction (up/down,right/left).

Unless you really enjoy working with Cartesian coordinates, you will want to move on to the Panel Utility to create panels for 3-D. The Panel Utility allows you to make 2-dimensional panels, which you can then transfer to the 3-D Module and turn into 3-D figures. You can also add text in the Text Module, then on to the Drawing Module to complete your masterpiece.

One of the more interesting options in the 3-D mode is "Changing the Center," that is, changing the center you want your figure to rotate around. Or in scaling you can "expand the object out from the center, so that the center point is the only one that remains stationary." Another feature is "scaling the view, but not the object," that is changing the perspective without changing the size of the object. Using the (V) command, "to get less perspective move the object farther away, and magnify it with the (V) command. To get more perspective, move it closer and reduce it with the (V) command."

You can take any number of figures you have created and saved and combine them to make one large picture that you can move, scale, rotate, and distort, to your heart's content. If after all your work you decide enough is enough, you can save or delete the whole thing.

GENERAL COMMENTS

The manual is a 32-page, 8.5 x 5.5" professionally written and printed booklet, which includes four pages of programming notes for the advanced user and appendices with the ASCII codes and summary command lists. The booklet itself is printed on light blue paper with clear and sharp black print. No eye strain and very easy reading with no glare. The paragraphs on the whole are short with bold print headers and subheaders. Finding the information you need is no problem. The documentation gets an A+.

A word about the 108 colors: there may be 108, but I couldn't always detect them. I'm not really impressed by the use of color in any of the graphics packages I have seen. What I am impressed with is the pattern that the colors make on a black and white monitor and not the cartoon vividness of the color. This does not mean that I don't appreciate the work and skill that go into the creation of a graphics package. Microcomputer graphics is still a relatively new art form. We are all aware of its current limits: the saw-tooth diagonal lines, the colors that don't work well next to each other, lines that change color depending on their direction. But these graphics are fine for certain applications -- tracing a pipe through a refinery layout or a wire through a wiring diagram, the use of vivid color in charts and graphs, and of course games.

I haven't discussed all the modules, but this gives you an idea of the variety of options this package contains. The Complete Graphics System is not the most user friendly graphics package on the market but it is just about the most complete, as the name implies. Mark Pelczarski has designed a graphics package with the programmer in mind so first time graphic users may find it slow going at first. Read the documentation. Everything does work.

Who is the Complete Graphics System for? The experimenter, the tinkerer, anyone who enjoys playing with a number of interesting features or just enjoys having a powerful graphics package to add to a never ending software libary. There is an add-on to the Complete Graphics System called Special Effects, also reviewed here.

SPECIAL EFFECTS
By Mark Pelczarski and David Lubar
PENGUIN SOFTWARE
P.O BOX 432
WEST CHICAGO, ILLINOIS 60185
$39.95

Reviewed by Bill Porter

Special Effects is an add-on to the Complete Graphics System with many of the same features, or it stands alone. It is menu driven. From the master menu you have a choice of five modules.

The layout of the screen is like the Complete Graphics System with four lines of text at the bottom of the screen. In the Painting Module you can use either paddles or joystick; pressing (J) will reverse the orientation of your joystick. I found this very useful. When I move my joystick horizontally the cursor moves vertically. Pressing (J) put everything to rights. In this package you have a choice of something like 97 different predefined brushes. It may not be fair of me to criticize something that works so well, but I found it easier to design my own brushes as I went along.

In the Magnifying Mode you can magnify the spot under the cursor two or four times (press '2' or '4') and change the color of the pixel. This is a great help to the "Artist".

The next module is the Trick Module. This is an assortment of utilities that allow you to do many strange and wonderful things. You can mirror image left to right, right to left, top to bottom, bottom to top or turn everything upside down. Then you can swap colors with Color Tricks or move parts of pictures from one location to another. There is a picture packing module that gives you more pictures per disk, and for the programmer there are Programming Notes.

All in all you would have to say this is a pretty complete graphics package. With Special Effects and The Complete Graphics System you have a tool to warm the heart of any graphics buff.

Penguin has come out with Complete Graphics System II. I haven't seen it yet. All I know about it is that it is unlocked and the manual is printed blue on blue, making it hard to copy. So you might investigate Graphics II and the Graphics Tablet, another Penguin product.

Mark Pelczarski and David Lubar (Mark did CGS and Mark and David did Special Effects) are producing good, sound software at a fair price. Now they are coming out with UNLOCKED graphics software. So let's give Penguin our support, not only as a club but also as individual micro users and future software producers. If you are looking for a graphics package and all things are equal, pick the Penquin.

REVIEW OF "AMPERDUMP"

(c) By Don Scellato

"AMPERDUMP" is a high resolution graphics dump program written for use on the Apple II computer connected to either the Epson MX-80 or Epson MX-100 printer. The program was written by John R. Conrad and is being marketed by Madwest Software, P.O. Box 9822, Madison, Wisconsin. The suggested retail price for AMPERDUMP is $30.00. AMPERDUMP requires the installation of the Graftrax chips in the Epson MX-80 to enable the printer to print the graphics screens being dumped.

AMPERDUMP allows the user three horizontal widths for the graphics screen being dumped. These widths are 2.33 inches, 4.66 inches, and 6.99 inches. The program allows the user nine vertical magnifications with the MX-80 printer. These magnifications are 0.88 , 1.77, 2.64, 3.78, 4.25, 4.45, 5.31, 5.87, and 7.96 inches high. The program only allows three vertical magnifications on the MX-100 printer. These magnifications are 2.64, 5.31, and 7.96 inches in height. These ranges of horizontal and vertical magnification give the user 27 different plot size formats on the MX-80 and 9 on the MX-100.

AMPERDUMP allows both inverse and normal dumps of any graphics screen It also allows the user to adjust the horizontal tab position of the screen being printed. The program is relocatable and is compatible with Madwest's AMPERGRAPH graphics utility program.

AMPERDUMP requires Applesoft in ROM, at least 48K RAM, and DOS 3.3. To start the program, the user should either have the graphics material already on HI-RES page 1 or on page 2. Otherwise, he should have the graph or picture he wishes to print stored on another DOS 3.3 disk. If the former is the case, he should boot the AMPERDUMP disk without turning off the computer. In the latter case, the picture or graph may be loaded from the already booted AMPERDUMP program through the use of a menu selection described below. Once AMPERDUMP is loaded, the following menu appears on the screen under the title and author information:

AMPERDUMP LOADED.

Options: (1) Run menu dump program
(2) Run demonstration program
(3) Configure for hardware
(4) Change default parameters
(5) Link with Ampergraph

(6) Exit

What do you want to do ?

Option (3) should be run first to ensure that the program is properly configured to operate the user's printer. The selection of this option produces the following screen display:

AMPERDUMP HARDWARE CONFIGURATION

```
PRINTER (1) MX-80
        (2) MX-100

Which printer ?
```

After the user makes the appropriate selection by pressing the appropriate response number and no RETURN, the following screen is displayed:

```
PRINTER : MX-80

INTERFACE: (1) EPSON
           (2) GRAPPLER
           (3) INTERACTIVE STRUCTURES
           (4) MOUNTAIN COMPUTER
Which interface ?
```

After this selection is recorded, the program asks for the printer slot number. The user then provides this final piece of configuration information by pressing the number for the printer slot and the information is automatically stored off to the program disk until someone wishes to reconfigure the system again.

The program the asks:

```
What do you want to do?
     (1) Run demonstration
     (2) Reconfigure
     (3) Exit
```

"Run demonstration" loads the Demo picture from the program diskette and places the user in the "Menu Dump Program" of the Main Menu. There is no way back to the Main Menu from the "Hardware Configuration" program without exercising the third option listed above and rebooting the program. This characteristic is only awkward if the user intends to change the default parameters of the program. The requirement of running through the process of loading the demo program is also somewhat awkward and time-consuming if the user wishes to move directly from hardware configuration to the screen dump routine. The program would be more convenient if the user was given the "Run Menu Dump Program" option and the "Change Default Parameters" option as part of the menu displayed at the end of the reconfiguration process.

Whether the user gets to the screen dump program through the Demo or through making the selection from the Main Menu, the following nformation and options are provided:

```
PARAMETERS: Vertical Scale(1-9).....3
            Horizontal Scale(1-3).....2
            Horizontal Tab(0-33).....10
            Inverse/Normal(I/N).....I

            Graphics Page(1,2).....2

OPTIONS: (1) Dump Graphics
         (2) Change Parameters
         (3) Load Graphics From Disk
         (4) Save Graphics on Disk
         (5) Catalog the Disk
         (6) View the Current Graphics Page
         (7) Exit
```

By pressing number 2, the user places himself into the top part of the screen on the end of the first line where he is allowed to select the appropriate Vertical Scale. He moves down each line by pressing RETURN until he is returned to the screen dump menu.

By pressing 3, the user places himself in a program which allows him to load a known picture or graph from a DOS formatted disk. Option 5 is selected when the user needs to catalog the disk on which the picture or graph he desires is stored. Option 4 is selected when the user wishes to save the Hi-Res graphics page in the computers memory. I found this routinme very useful for saving graphs from a DOS 3.2 version of APPLE PLOT onto a DOS 3.3 initialized diskette. It is also useful for saving anything which the user has placed on the Hi-Res screen with any graphics program or graphics tablet.
The selection of Option (6) allows the user to view the contents of the Hi-Res screen currently in memory as selected from the parameters listed over the option list.

Finally, when the user wishes to print the screen in memory, he uses Option (1). This option transfers the picture to the printer in enhanced print. There are no delays between lines which could cause some overheating of the printer head if the "Normal" parameter is selected. This selection prints black dots where the screen is black. If the user wishes to achieve black dots where the screen is white, the Inverse parameter must be selected.

A number of samples of material dumped using this program are provided in the printed version of this review.

In a nutshell, the program is a no frills screen dump program limited to use with the Epson MX-80 equipped with the Graftrax chips or with the Epson MX-100 printer. It allows no picture rotation. It is easily reconfigured. If I were to ask the Manufacturer to make any changes which would enhance the program. I would look for some means of getting from one menu to another without exitting the program. Printing of portions of the screen and rotation would expand the potential uses of the program. Documentaion is adequate considering that the program practically leads the user through itself from beginning to end.
If you want an easy screen dump program for then MX-80 or the MX-100, this program is worthy of your consideration.

Epson
Printer

Beagle Brothers' UTILITY CITY

A software review by Jim Linhart

I just recently purchased an Epsom MX100 printer and with it Beagle Brothers' disk of utility programs, UTILITY CITY. One of the programs is XLISTER.A, an Applesoft print formatter. When it lists out a program, the lines of code are aligned up nice and neat, making a program easy to scan. Well, XLISTER.A is an Applesoft program, and I had it list itself out. Beagle Brothers has a policy of allowing their software to be copyable, listable, and more importantly, modifyable. And I wanted to modify XLISTER.A to interact with the Epson printer, being able to choose which font I wanted the listing to come out at, COMPRESSED, NORMAL, or TINY (real tiny).

Consulting with the excellent Epson manual made writing the necessary changes easy. I altered XLISTER.A so now whenever I run it, I get the font listing, and the other formatted. You'll see what a nice job XLISTER.A does of formatting.

UNFORMATTED:

```
1195  GOSUB 2000

1185  GOSUB 1500



1500  VTAB T + 12: PRINT "NOW SEL
      ECT A PRINT STYLE:
1510  VTAB T + 13: PRINT "  N=NOR
      MAL"
1520  VTAB T + 14: PRINT "  C=COM
      PRESSED"
1530  VTAB T + 15: PRINT "  T=TIN
      Y"
1540  INPUT QQ$
1550  IF QQ$ = "N" GOTO 1599
1560  IF QQ$ = "C" GOTO 1599
1570  IF QQ$ = "T" GOTO 1599
1580  VTAB T + 17: PRINT "  PLEAS
      E RETRY"
1590  GOTO 1540
1599  RETURN



2000  REM  SET UP THE EPSON PRINT
      ER
2010  PRINT  CHR$ (27)"@"
2020  PRINT  CHR$ (27)"5"
2030  PRINT  CHR$ (27)"W" CHR$ (0
      )
2040  PRINT  CHR$ (20)
2070  IF QQ$ = "T" THEN  GOTO 220
      0
2080  IF QQ$ = "C" THEN  GOTO 210
      0
2090  GOTO 2999

2100  REM  COMPRESSED MODE
2110  PRINT  CHR$ (15)
2120  PRINT  CHR$ (27)"A" CHR$ (8
      )
2130  GOTO 2999
2200  REM  TINY PRINT MODE
2210  PRINT  CHR$ (20) CHR$ (27) CHR$
      (83) CHR$ (0)
2220  PRINT  CHR$ (27)"A" CHR$ (6
      )
2230  PRINT  CHR$ (20)
2299  GOTO 2999
2300  REM  NORMAL MODE
2310  GOTO 2999
2999  RETURN
```

FORMATTED with XLISTER.A:

```
1185 GOSUB 1500

1195 GOSUB 2000

1500 VTAB T + 12
   : PRINT "NOW SELECT A PRINT STYLE:
1510 VTAB T + 13
   : PRINT "  N=NORMAL"
1520 VTAB T + 14
   : PRINT "  C=COMPRESSED"
1530 VTAB T + 15
   : PRINT "  T=TINY"
1540 INPUT QQ$
1550 IF QQ$ = "N" GOTO 1599
1560 IF QQ$ = "C" GOTO 1599
1570 IF QQ$ = "T" GOTO 1599
1580 VTAB T + 17
   : PRINT "  PLEASE RETRY"
1590 GOTO 1540
1599 RETURN

2000 REM  SET UP THE EPSON PRINTER
2010 PRINT CHR$ (27)"@"
2020 PRINT CHR$ (27)"5"
2030 PRINT CHR$ (27)"W" CHR$ (0)
2040 PRINT CHR$ (20)
2070 IF QQ$ = "T" THEN GOTO 2200
2080 IF QQ$ = "C" THEN GOTO 2100
2090 GOTO 2999
(cK)
2100 REM  COMPRESSED MODE
2110 PRINT CHR$ (15)
2120 PRINT CHR$ (27)"A" CHR$ (8)
2130 GOTO 2999
2200 REM  TINY PRINT MODE
2210 PRINT CHR$ (20) CHR$ (27) CHR$ (83) CHR$ (0)
2220 PRINT CHR$ (27)"A" CHR$ (6)
2230 PRINT CHR$ (20)
2299 GOTO 2999
2300 REM  NORMAL MODE
2310 GOTO 2999
2999 RETURN
```

Another nice program on the UTILITY CITY disk is MULTI-CAT. It lists disk catalogs one (or more) rows across. I found it quite helpful to print catalogs two rows across. I found it quite helpful to print catalogs two rows across as the resulting print-out slips nicely into the sleeve along with the diskette. Like XLISTER.A, this program was altered to print out the catalog in the font I wanted. Note the nice job MULTI-CAT does of printing out the catalog of a systems utility disk:

```
UTILITY DISK 03
-------------------------------------------------------------------

BEAGLE BROS.

#A 006 SYSTEM.STARTUP

  #I 006 APPLESOFT                    #B 050 INITBASIC
#B 050 FPBASIC                        #B 010 BOOT13
#A 005 MENU/RUN DISK HEADER           #I 009 COPY
#B 003 CHAIN                          #A 009 COPYA
#B 003 COPY.OBJ0                      #B 009 MASTER CREATE
#B 020 FID                            #A 013 RENUMBER
#B 027 MUFFIN                          T 011 PROG.LIST
#A 039 RENUMBER INSTRUCTIONS           I 016 DISK ACCESS UTILITY
#A 005 ASCII DECODE                    I 005 FID/RUN
 I 005 DISK CATALOG FILE ORGANIZER    #A 006 MENU/RUN DISK HDR (APPLESOFT)
#I 007 PASSWORD KEY                    I 012 ULTIMATE B-STAT (TUBS)
#I 005 MENU/RUN DISK HEADER (INTEGER)  B 007 RECONSTRUCT VTOC
 B 017 APPLE II DISK UTILITY (VER.6)  #B 005 POSITION
 B 009 FAST COPY                      #B 002 CTRLFIND
#B 003 UNDO POSITION                  #B 004 EXPUNGE.MACH
#I 006 EXPUNGE                         B 016 HEX/ASCII MEMORY DUMP.S
#I 160 ASSEMBLER V5.4                #I 008 SWEET 16 DISASSEMBLER
 I 008 TEMP HEX/ASCII MEM DUMP.O       A 006 PAGE LIST DOCUMENTATION
 A 030 MICROLISP
 B 002 PAGE LIST
-------------------------------------------------------------------
```

All in all, I'm quite pleased with Beagle Brothers' UTILITY CITY and it's worth $29.50 I paid for it.

(Jim Linhart is responsible for the drawings, sketches and humor found throughout the Cider Press. His creative energy never seems to ebb. Ed.)

New Products

NEW PRODUCT RELEASE
GRAPHICS +PLUS
by LAZER MicroSystems, Inc.

Lazer MicroSystems, Inc., is pleased to announce the availability of their Graphics +Plus module for the Apple II microcomputer system. This board mates with Lazer's earlier unit, the Lower Case +Plus (and Lower Case +Plus III) to give the user a RAM based character set on the Apple II. With the Graphics +Plus, the Apple user can easily define and redefine the characters that appear on the text screen.

The Graphics +Plus is not to be confused with any of the "HIRES CHARACTER GENERATOR" programs available for the Apple II. Although the Graphics +Plus lets you define any character you can fit in a 7x8 cell (like the HIRES CHARACTER GENERATORS) bsolutely no use of the HIRES graphics page is made! So 280x192 HIRES-style graphics become available on the Apple's 1K TEXT screen. Since you are only manipulating the 960 bytes of data on the text page instead of the 8K bytes on the HIRES graphics page, less than one-eighth the work is required to manipulate the graphics characters on the screen. Since the graphics manipulation section of a program would be running eight to ten times faster, more time is available for performing more complex calculations; improving the sound effects; or evern bettr, allowing the user to write the program in BASIC instead of assembly language.

Since the Graphics +Plus allows you to redefine the character set used by the Apple's text video circuitry, a whole new range of word processing, business, scientific, and game applications are possible. For example, you could redefine the character set for some foreign language (such as French, Spanish, etc.) or include a business forms graphics set that lets you draw a business form on the Apple's video display. Mathemeticians and scientists can use the Graphics +Plus to let them display special characters they require without resorting to the memory-wasting and timeconsuming HIRES graphics methods. Game applications are extremely simplified by the use of the Graphics +Plus. No longer will the programmer be required to know the intricate details of Apple's HIRES graphics nor will assembly language be required to write professional quality arcade-style games. The Graphics +Plus will open new doors to almost any Apple user.

Included with the Graphics +Plus are over 20 example fonts, and excellent font editor (and the fonts created by any HIRES CHARACTER GENERATOR are compatible with the Graphics +Plus), several utility programs and example files. Both Pascal and DOS 3.3 software is provided on diskette for the Graphics +Plus user. Complete documentation for use and installation is provided with each board. The Graphics +Plus is available from your local dealer (or direct from Lazer MicroSystems) for only $159.95. If you do not own a Lower Case +Plus or a Lower Case +Plus III, Lazer offers a special package price consisting of a Lower Case +Plus III and Graphics +Plus for only $199.95.

All Lazer products can be seen at your local dealer, or you may contact:

Lazer MicroSystems, Inc.
1791 Capital, Unit G
Corona, CA 91720
(714) 735-1041

NEW PRODUCT RELEASE
SOSCLOCK /// FOR APPLE ///
by System Fabricators

SOSCLOCK /// is designed to provide fully SOS compatible clock and claendar functions for the Apple ///. Installation of the SOSCLOCK /// permits the use of all SOS time and date intrinsics as they were originally intended.

The kit supports the SET TIME and GET TIME SOS utility management system calls, providing full interface on the operating system level. This allows complete clock and calendar function at the user level without the need for peripheral electronics or user program subroutines.

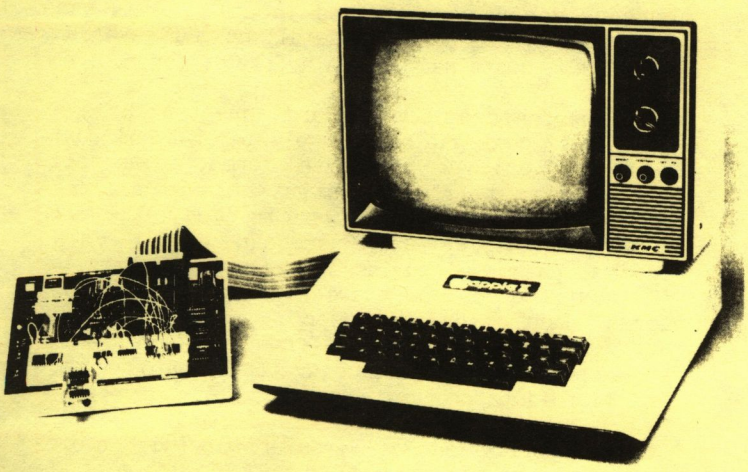
Apple /// SOS will read the time and date from the SOSCLOCK /// automatically to provide: automatic stamping of volume directories with the current date and time, use of the reserved variables TIME$ and DATE$ in Apple /// Business Basic, use of the procedures DATE, TIMEOFDAY and SETTIME in Apple /// Pascal, and full implementation of the system calls SET TIME and GET TIME.

SOSCLOCK /// is a complete kit containing a clock/calendar IC, backup battery assembly and a comprehensive owner's handbook. The IC mounts in a socket provided on the Apple /// motherboard. The battery case mounts just under the Apple /// top cover, allowing easy user access for battery replacement.

Developed by an energy management company for their own OEM use, SOSCLOCK /// is now available at $60 from:

System Fabricators
736 Hermosa Avenue
Hermosa Beach, CA 90254
(213) 372-6273

NEW PRODUCT REVIEW
INTERFACE BREADBOARD & APPLE INTERFACING
by Group Technology, Ltd.



The APPLE Breadboard Interface provides controlled access to those signals in the APPLE microcomputer needed to communicate with and control external devices. Programs can then be written using the BASIC language. Thus the user is enabled to design and operate custom interfaces to meet individual applications without necessarily having knowledge of machine or assembly languages or the internal circuitry of the microcomputer.

The data bus is fully buffered; a unique scheme protects it in the event that wiring errors have occured; up to eight decoded outputs are available either in the device addressing mose or in the memory addressing mode. Up to 256 input/output (I/O) devices may be addressed. A probe circuit permits detection of logic signals nad pulse-edges. Experiments can be performed and interface circuits tested using hook-up wire and the solderless breadboard through which all of the interface signals are made available. The breadboard is available as a kit or completely assembled.

APPLE Interfacing, a 206-page text by Jonathan A. Titus, David G. Larsen, and Christopher A. Titus, instructs the reader in the design of custom interfaces using the APPLE Interface Breadboard. It covers the construction of device address decoders, input ports, and synchronization signals. Hardware interfaces and software listings are shown for A/D and D/A converters, programmable interface chips, data loggers, a traffic light controller, and a digital logic tester. The text includes 16 experiments that can be performed by the user; expected results are discussed. All programming is done in BASIC. Parts lists and printed-circuit board artwork are given for the Interface Breadboard.

The interface and book have been designed and written by the Blackburg Group. Users are enabled to apply the APPLE to an unlimited number of tasks involving the acquisition of data or the control of external devices.

The APPLE Interface Breadboard is available as a kit (BG-125K, $210.00) or as an assembly (BG-125A, $275.00). Either requires an interconnect cable not included (BG-Cable, $14.95). Shipping $3.50. Both kit and assembly include the textbook.

APPLE Interfacing, J.A. Titus, D.G. Larsen, and C.A. Titus, 206p. Book No. 21862, $10.95 plus $1.00 shipping and handling.

For further information contact:

Group Technology, Ltd.
P.O. Box 87
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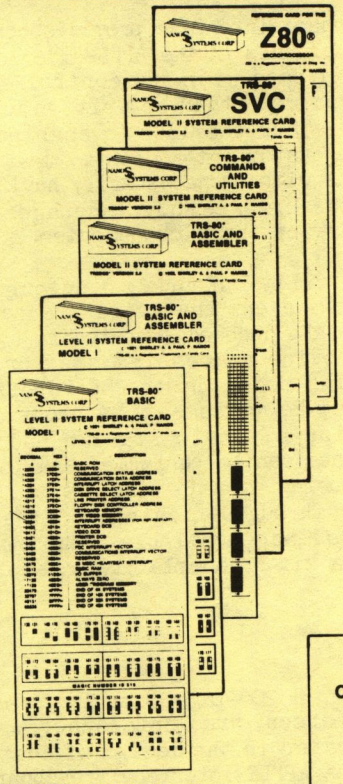

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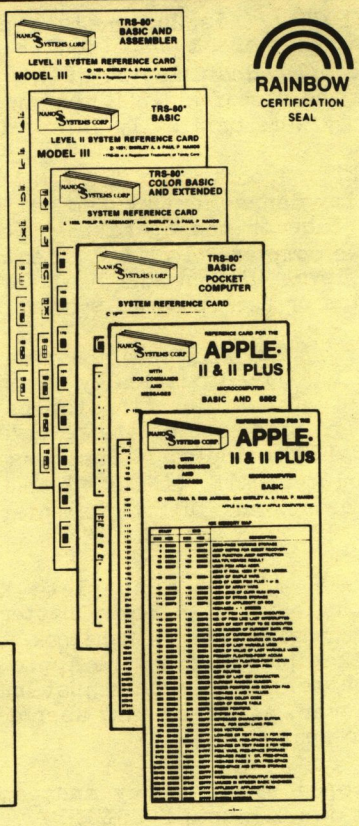
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For further information contact:

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NEW PRODUCT RELEASE
VERSAFORM ANNOUNCED FOR APPLE ///

LOS GATOS, CA — Applied Software Technology, and independent software vendor providing microcomputer programs for business and professional applications, announced today it's Apple /// version of the VersaForm Bousiness Form Processor. This new version, which supports the Apple /// ProFile and Corvus Hard Disk Subsystems, joins the already popular Apple II version of VersaForm.

VersaForm, generically identified as a Business Form Processor, is a powerful and flexible set of user-friendly procedures which allow a non-programmer to set-up business forms on the Apple computer, to store them as files, and to generate analyses and management reports from their data. A rich set of automatic filing, data entry checking, and calculation options may be chosen to enhance accuracy and speed input. A data base reporting system produces detail summaries of any data items contained within a file of forms.

A unique feature of VersaForm, one that bridges the traditional gap between old paper-based business forms and new video-based forms, is an ability to format printed output to match a preprinted form as though it were manually typewritten. Thus, a first-time user can get full value from an automated business system without having to incur the cost of the designing of new paper forms. Furthermore, the user can enjoy the familarity of accepted business forms, yet achieve the economies and efficiencies available through modern micro-data processing.

Common applications of VersaForm include invoicing/accounts receivable, purchase order generation/operations management; professional time and billing; estimating/job costing, and personnel records/benefit accrual reporting.

The hard disk versions of VersaForm, which now include both Apple II and Apple ///, allow file

sizes of up to 4 Mbytes. This ability to create large files without tedious and complex "volume swapping" has been requested by a large number of users of many Apple II programs with hard disk subsystems running Apple DOS 3.X. VersaForm may be installed on Apple systems using ProFile, Corvus, and other hard disks supporting the Pascal operating system.

VersaForm Apple /// versions share all the important user interface features of the Apple II versions, insuring that user migration from an Apple II to an Apple /// is a snap. Both Apple II and Apple /// versions share the ability to have 80-column screen formats, allowing both systems to have identical "forms" on the screen. Not only are the Apple II and /// 80-column screens identical, so is the user interface, command structure, reporting procedures, and file maintenance. Data disks may be interchanged between Apple II and Apple /// systems, allowing users to add Apple ///'s to their existing Apple II networks without having to cope with data incompatibilities and conversions.

The Apple /// version of VersaForm retails for $495, and is available worldwide through Apple dealers and from software distributors.

Michael Moon Associates
4340 Stevens Creek Blvd., Ste. 150
San Jose, CA 95129
(408) 554-0604

for:

Applied Software Technology
14125 Capri Drive
Los Gatos, CA 95030
(408) 370-2662

NEW PRODUCT REVIEW
PAK4: THE POWER/ACCESSORY ENHANCEMENT FOR APPLE II
by MASON DESIGN

Now for the first time you can extend the life and reliability of your exciting Apple II, adding affordable cooling, integral security and long-awaited convenience to America's most popular personal computer. Easily attached with no special hardware or tools, **PAK4** up-grades your Apple II for safety, usefulness, efficiency and reliability.

PAK4 features: four power receptacles; surge voltage protection; external access to the paddle socket; efficient cooling fan; master power switch shuts down computer and receptacles; built in accessory Videx switch; and safety interlock switch to protect mother-board.

Design: installation quick, rugged, w/o screws; compact package complements the Apple Computer; 110VAC 60HZ; dark brown Polane paint.
For further information contact:

Mason Design
9850 Redwood Highway
Penngrove, CA 94952
(707) 795-0746

SPECIFICATIONS

Mechanical
- **4" x 15" x 4" (HxWxD)**
- **5 lbs.**

Electrical
- **115 VAC 50/60 Hz**
- **4 peripherial grounded outlets 800 watts capacity**

Apple ///

Speeding up your Apple ///

by Don Norris

Recently while working with the Apple Writer Word Processing Language I ran across the command "PND". This command turns off video output. With video output off, the 6502B microprocessor runs approximately 20% faster. This means that WPL programs will execute faster.

The Standard Device Drivers Manual on page 139 says that by holding down the CONTROL key while typing 5 on the numeric keypad you can turn the video display on and off. So the WPL command "PND" is doing the same thing as CONTROL 5.

I use VisiCalc extensively in my life insurance business to do calculations for proposals. Some of my models are fairly large and require several minutes to recalculate. This raised the question would CONTROL 5 work with VisiCalc. After pouring through the VisiCalc manual I could find no reference to using CONTROL 5 to turn off video output to speed up recalculations.

The first time I used CONTROL 5 during a VisiCalc recalculation to turn off video output I thought I would have to manually turn video output back on using CONTROL 5 again. Well to my surprise the video output was restored automatically after the recalculation was complete.

About this same time I was starting to read the Apple /// Pascal manuals. The Introduction, Filer, and Editor manual explained on page 23 why the video output was automatically restored. It also explains why the recalculation runs faster. The explanations from page 23 the manual are as follows:

> Pressing CONTROL 5 causes output to the display screen to be suppressed. Pressing CONTROL 5 again resumes display updating. This function allows compilations, assemblies, and programs to run faster since no time is spent in updating the screen, and processor time can be used for other tasks.
>
> Note that any program that makes a read to the console will turn the screen back on, just like pressing CONTROL 5 the second time.

VisiCalc after completing the recalculation is looking for input from the keyboard and this explains why the video output is restored automatically.
Loading a model or data using DIF, into VisiCalc triggers a recalculation so using CONTROL 5 will speed up the recalculation during this process.

CONTROL 5 also speeds up the following prodedures:

VisiCalc
1. Moving columns or rows
2. Inserting or deleting columns or rows

Apple Writer
1. Global search and replace
2. Renumbering a mailing list

Mail List Manager
1. Sorts

So the next time you are working with that large VisiCalc model, Apple Writer text file, or mailing list use CONTROL 5 to speed things up.

- /// -

WHY A ///

by Don Norris

A few weeks ago I attended IAC President Ken Silverman's housewarming in Santa Clara and visited with IAC Chairman Bernie Urban. When I told Bernie that the /// was my first computer and yes I had one of the earlier ///s which was subsequently replaced by Apple, he asked me would I buy a /// again. The answer is an emphatic yes.

Why? There were several reasons for my purchase in February 1981.

1. It was an Apple Computer, not a TR--S- ##, purchased from R-d-o, Shack. After all have you ever heard of the San Francisco TR(What Ever)## Core, or is there a Publication called the R-d-o Shack Orchard.

2. VisiCalc. As a life insurance agent working with lots of numbers I was looking for number crunching and VisiCalc on the /// was head and shoulders above VisiCalc on the][. Primarily because it was 80 full columns. Plus it had Upper and Lower Case. I ordered my /// from the Computer Connection here in San Francisco, and since my order was placed during some of the "turbulent" times of the ///, delivery of my /// was delayed. While I was waiting I used their demo /// (while it was healthy) or one of their][+'s in the store. Changing the direction of the cursor on the][with the space bar was a real pain.

3. Built in numeric keypad. I work with a lot of numbers and this was a must.

4. A word processor was "supposed" to be released shortly. (What ever happened to Word Painter anyway.)

5. In addition to the larger memory the /// is faster and easier to use than the][.

Perhaps some of my initial decision was based upon blind faith that it was not an Edsel, and would be supported by Apple. Additionally I believed other software producers would begin to produce software written to take full advantage of the features of the ///. The replacement of Apple ///'s with a serial number lower than 14000 tells me that Apple is commited to the ///. Software is being written by several companies now.

Admittedly my /// may not create the image of an integrated professional system with my Sanyo Monitor as it would with the Monitor ///, and my second disk drive is noisier and not as aesthectically pleasing as the new ones. The system works and has been a profitable addition to my business.

Owning an Apple /// and becoming involved with user groups such as the San Francisco Apple Core and the Original Apple ///rs has greatly expanded my realm. I have made friends and contacts which would have been impossible otherwise. Additionally the intellectual challenge to learn to use even some of the computer's potential is the greatest one I have found.

- /// -

CP/M

WORDSTAR

Review (c) copyright by Woody Liswood

Published by:

MicroPro
International Corporation
1299 Fourth Street
San Rafael, Ca. 94901
(415) 457 - 8990

Want a quick opinion. WordStar is the best word processor available for the Apple. Period. I'll let you know if I find anything that can come close.

There is one, problem, though. WordStar is a CP/M based program. Therefore you need to purchase a CP/M card of some sort as well as an 80 column card. If you do lot's of writing, you will be glad you did.

WordStar is a what-you-see-is-what-you-get type of program. The screen shows you exactly what will appear on your paper. To me, that is what word processing is all about.

WordStar is not the easiest program you will ever have to learn. Since the program can do so much, and offers you so much flexibility, you have to learn how to use all of the features.

DOCUMENTATION

The documentation which comes with WordStar is so complete it gets in the way. It is designed to document the program, not to teach you how to use it. I have used WordStar for a long time now, and I still discover new things it can do when I page through the manual. What happens is that I get a need, look in the documentation, then discover that it not only does what I want, it does a few more things also.

OPERATION

The operation is quite simple, or quite complicated. It all depends on your point-of-view. I go for the simple. The program is controlled by control sequences. To me they make sense.

Cursor movement is all with the left hand. A control S moves to the left. A control D moves to the right. A control E moves up and a Control X moves down. So far, so good. A control A moves left one word. A control F moves right one word. Now some complications. A control QS moves to the left end of the line. A control QD moves to the right side of the line. A control QE moves to the top of the screen. A control QX moves to the bottom of the screen. A control QR moves to the start of the file and a control QC moves to the end of the file. A control Q plus a number will move to those marks if you have set them.

A control Y deletes the line the cursor is on. A control T deletes the word to the right. A control G deletes the character the cursor is on. A control QY deletes to right side of the line. A control Q(left arrow) deletes to left side of line. A left arrow deletes a character it goes over.

I have heard criticism of WordStar because of all of these one and two control character sequences. I have also heard criticism that WordStar, on the Apple, doesn't have the special function keys that are available on other CP/M based machines. Rubbish. Having all those keys available under your left hand means you can do all your text manipulation and cursor movement without moving your hand from the keyboard or without having to take your eyes away from to screen to figure out what to do. That makes the program very easy to use. I've tried the function keys and personally feel that they get in the way. Actually, if function keys were available I would use them for strings of commands (macro's if you will), not for single movement commands. I would have one key save the current file and return the cursor back to the current location. Oh well, maybe some day.

SIZE OF DOCUMENT

WordStar buffers its files to the disk drive. That means you can work on a document which is as large as you can store on your disk. That is a large amount of data.

SCREENS

WordStar contains a series of help screens. These screens contain many of the control command sequences which you can use to cause things to happen. After you gain some familiarity with the program, you can turn the screens off. A very nice feature.

NO-FILE

The first screen which appears is the NO-FILE menu. It is called "no file" because you do not have a file in memory to be worked upon. From this menu you can change the logged drive, allow your file directory to be displayed or not, and set your help level. This determines the amount, if any, of information that the help screens will show.

From here you can also print a file, rename a file, copy a file from one name to another or from one disk to another, and you can delete a file.

Also available are an exit back to CP/M or a Run a program option, with would return you to WordStar when it ends. There is also a command to run MailMerge or Spellstar.

WordStar also works with two types of files. You can edit normal word processing files. These files will contain lots of special characters which the program uses for it's formatting. You can also edit a normal CP/M text file and have no special formatting characters put into the file.

MAIN MENU

If you have selected a help level of 3, then all of the help menu's will appear when requested. First to appear is the MAIN MENU. This menu shows you the control sequences which move the cursor around and cause the screen to scroll. You don't have to memorize all those things I was talking about. They are displayed at the top of the screen for you to read. Also displayed are some Miscellaneous commands for tabbing, reforming paragraphs, turning insert on and off, the find and replace and how to stop a command once you have given it.

For example, a Control-B reforms a paragraph. Wordstar, while you are entering data, automatically word wraps and right and left justifies the text. However, you will probably want to go back and add or subtract characters. When you do that the right justification is lost. When you are finished with the editing, you move the cursor back to the line where you started your editing and press a Control-B. The paragraph then is justified and things can continue. That's how easy it is. Oh, yes, you can turn off the justification feature if you wish.

WordStar allows you to insert or write over your file. It is your choice. I always leave the insert on.

The other thing shown on the menu is the control sequences to get to the other menu's. Remember that there are many two character control sequences. Each of the First character's has their own screen to show you what the second character is and what that character does. Control J gives you a Help menu. Control Q shows you what is called a Quick menu. Control O controls the Onscreen menu. Control K is the Block menu, and Control P shows you special characters which will affect your printing.

HELP

The Help menu gives you text information about the help levels, how the reform command works, what the special symbols mean that are shown at the right side of the screen, and what each of the "dot" commands do. In addition, it has text information about the status line, the ruler line, how to set margins and tabs, how to place markers and how to move text.

QUICK

The QUICK menu shows you many of the commands that are accessed by first typing a Control-Q. A control QS moves the cursor to the left end of the line. A control Q F starts a string or character find sequence, a L finds a misspelled word marked with SpellStar, a Q plus something else repeats that indefinitely or until the end of the file is reached.

BLOCK

The BLOCK menu is reached by first typing a control-K. This shows you the characters for setting, moving, and working with blocks of information. After a CONTROL-K, S saves the file onto the disk and and let's you continue working, D saves the file and places you at the no-file menu, X saves the file and places you in CP/M, Q abandons the work, 1 to 9 places those markers, B marks the beginning of a block of text for a block move, K marks the end of a block for a block move, H hides or displays a marked block. That deserves an explanation.

If you use a Videx board with a Inverse chip, then the menu's and special functions are all shown in inverse characters. When you mark a block of text, all of that text turns into inverse characters. Makes it very easy to see what you are doing. Well, when you are done, you would use the H to turn off the inverse characters so that you can see the text normally. A C lets you copy blocks of text, a V lets you move blocks of text, a Y deletes text, a W writes the text elsewhere, and a N sets column mode on or off. Also, a R allows you to read a file on the disk and place it in your document, a O copies a file on to the disk, a J deletes from the disk, a P prints and a E renames.

As you can see, you can do your disk file operations and start printing some other file all while you are editing a current file. That is a very handy feature.

Yes, WordStar allows print spooling. You can be editing one file while you are printing another.

ONSCREEN

The ONSCREEN menu controls much of the visible activities of WordStar. It is reached with a Control-O. After the Control-O, a L sets the left margin, a R sets the right margins, a X releases the margins, an I sets and a N clears tabs, a G sets paragraph tabs and a F sets to ruler to the cursor position. A C centers the text, a S sets the line spacing mode. In WordStar, if you want double spacing and you cannot set that on your printer, you must have double spacing on the screen.

There are also a number of toggles at this menu. A W toggles word wrap; a T turns on or off the ruler line; A J is for justification , a V is for variable tabs, a H is for hyphen help, a E is for a soft hyphen; a D is for the printer display, and a P is for page breaks. Now to explain.

Word wrap only lets full words exist at the end of a line. Incomplete words, are wrapped down to the next line. If you don't want spacing between words you would toggle the word wrap off and let WordStar act like a typewriter page. There is a ruler line normally displayed at the top of the screen. It shows where the tabs are and what the margins are set at. If you want to display an additional line of text and don't feel you need to see those things, you can set it off.

Hyphen help is a useful WordStar feature. If you leave hyphen help on, then when you form paragraphs, rather than wrap longer words found at the end of the line down to the next line, WordStar will stop at the word and allow you to insert a soft hyphen in it. That way, your printed material will look better with less spaces between words on any given line. Soft hyphen, you ask? WordStar has hard and soft hyphens. Hard hyphens always print. Soft hyphens only print when they are found at the end of a line. If you toggle soft hyphen on, then all your hyphens will be soft. Sound Confusing? It really isn't. The Word Plus, a spelling program, actually will go through a WordStar document and insert soft hyphens in all words of a certain character length or longer. Page breaks are dotted lines which show on screen where the page will break when printed. This allows you to visualize how the material will look before you take the time to print it. I use that display all the time. When a page will break where I don't want it to, I use a dot command to change force a page break where I would like it to appear. The printer toggle hides special printer control characters so that your screen will show, exactly, what will appear on paper. If it is off, special printer control characters will appear where you inserted them. I leave it off so that I will know what is going on.

PRINT

The PRINT menu is reached with a Control-P. This menu allows you to insert printer control characters in the text. A B turns on bold face, a D turns on double strike, a S underlines, a X strikes out the text, a V subscripts, a T superscripts, A H overprints the characters, a changes to an alternate pitch, a N returns to standard pitch, a C allows for a pause during printing, a Y changes ribbon color, and there are four "user defined characters, Q W E R which will do what ever you set up during your WordStar installation. Of course, your printer must be able to support all these features.

BOLD FACE DOUBLE STRIKE <u>UNDERLINE</u> ~~STRIKE-OUT~~

DOT commands

Dot commands are commands which are preceded by a period "." and located with the period located on the far left end of a line. They are used by many word processors. With these commands, you can over-ride the WordStar defaults. Some of the commands are LH sets line height, CW sets character width, PL sets paper length, PO sets the page offset from the left edge of your paper, MT sets the top margin, HE sets a heading, MB sets the bottom margin, FM sets the footing margin, FO sets the footing, PC sets the page number column, PA starts a new page, CP starts a new page if there is a specified number of lines left to be printed, OP omits page numbers, PN starts page numbering, IG or two dots allows you to insert non printing comments, and VJ toggles justification.

SUMMARY

As you can see, WordStar can do almost anything you want it to do. Many people call it the Cadillac of word processors. I agree. If you do lots of writing, you need WordStar. Don't settle for second best.

SPELLSTAR

Review (c) copyright by Woody Liswood 1982

Published by:

MicroPro
International Corporation
1299 Fourth Street
San Rafael, CA 94901
(415) 457 - 8990

SpellStar is the MicroPro spelling program which works only with WordStar. It is run by keying in a S from the WordStar NO-FILE menu.

SpellStar comes with a basic dictionary of about 20,000 words. That takes most of one disk.

The program works very well. I have used it with many files without problems. Over the past few months I have used, and reviewed a number of spelling check programs. Each has its good points and its bad points.

The best feature of SpellStar is that it is designed to run within WordStar. Here's how.

After you select the SpellStar menu option within WordStar, you are asked the name of the file you want to check or to add to the dictionary. If you are doing a spelling check on the file you just worked on with WordStar, you key a Control-R and a return. Otherwise you must type in the name of the file.

Next you come to a operations menu. You choose C to check spelling, M to go to dictionary maintenance, or X to return to the no-file menu.

SPELLING CHECK

You are then given the option to change the spelling check controls. If you use a hard-disk, this is mostly not needed. If you are using 5 1/4 inch floppies, they you will need to tell SpellStar which drive has the file to be checked and which drive has the dictionary. You can, at this point, indicate which drive has the main dictionary, or change to default name of the main dictionary to the dictionary name you are using. You can add a supplemental dictionary name to be used. And, you can designate a work drive to hold the subsidiary files which SpellStar generates during its processing of your textfile.

What you have to worry about with small disks is that the dictionary takes about 100k. SpellStar generates work files that are equal in size to your text file. If you are checking large files, it is possible for you to run out of space. When that happens with CP/M you bomb.

THE SPELLING CHECK

While the spelling checking is going on, SpellStar displays a screen which tells you where it is and what it is doing.

First you are told how many words are in your document.

Then the number of different words are displayed.

Next is the number of words in your main dictionary along with the number of words in the supplemental dictionary.

Then, wordstar keeps track of where it is in the main dictionary and updates the number of dictionary words checked. This is a nice feature for it tells you what is happening. You don't just sit there staring at the screen waiting for a cursor to return and wondering if things have bombed and you should reset out and start over again.

When this is done, Spellstar gives you the number of misspelled words and the total number of occurrences of those misspelled words.

At this point you can display the misspelled words on the screen, start over, return to the WordStar menu, or mark the words as misspelled in the file and continue with the program.

CORRECTING YOUR SPELLING ERRORS

SpellStar uses WordStar to fix the errors. Each of the words is marked with a special character. You use a Control-L to go from word to word. You must make the decisions yourself. There is actually a menu of items that you can choose from. When the cursor stops at a potential misspelling, a F lets you fix the word, a B allows you to bypass the word leaving it marked, a I ignores the word, a D says the word is correct and will place it into a ADD file to be added to the dictionary during a maintenance operation, and a S adds it to the supplemental dictionary rather than the main dictionary.

SpellStar has a small buffer. If you instruct the program to ignore a word or say that a word is correctly spelled, it will automatically remove the spelling marks and pass over future occurrences of that word. That's a nice feature.

Works smoothly. No problems. However, this is the one area where I feel the program should be improved. SpellStar has no feature to check the dictionary for suggested correct spelling and to read a correctly spelled word out of the dictionary and correct the file. Modern technology for spelling programs should have that feature.

DICTIONARY MAINTENANCE

After you complete your spelling checking, and have indicated that there were correctly spelled words in the file you have the option to add those words to either a supplemental dictionary or to the main dictionary. WordStar has placed those words in a file with the extension .ADD. You would go back to the SpellStar prompt and this time choose the Dictionary maintenance option.

A menu presents itself with is similar to the spelling checking menu. You have the opportunity to indicate what drive contains what file. The main dictionary is 100k long. You will need a blank, formatted disk to hold the new dictionary since both will not fit on the same disk.

You also have menu items to create a new dictionary, add words, delete words, list dictionary words, combine add/delete functions or to only use the "S" words from the .ADD file.

When you combine add/delete this is what happens. Words which are in the ADD file but not in the dictionary are added to the dictionary. Words which are in the add file and in the dictionary are deleted from the dictionary. Actually SpellStar stops at each of the words to be deleted and informs you that this word is already in the dictionary and asks that you confirm that you really want to delete that word. Neat. That's how you get a misspelling out of the dictionary.

Dictionary maintenance takes a few moments, but not excessively so. It works well. Other spelling programs have the maintenance program as an automatic function after checking spelling. I kind of like this way. It gives me lots of control over the process and allows me enough options to set up things the way I want.

SUMMARY

This a well organized and constructed spelling checking program and dictionary maintenance operation. It is designed, specifically, to work with WordStar and takes advantage of the WordStar editing features for spelling correction. It works, is relatively easy to use, and like all MicroPro programs appears to have been designed as a solution to a problem rather than as an afterthought to a separate program.

MAILMERGE

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Published by:

MicroPro
International Corporation
1299 Fourth Street
San Rafael, Ca. 94901
(415) 457 - 8990

MailMerge is WordStars option for form letter development. It allows you to produce form letters, to insert variable data into a document during printing, to insert other complete files during printing, to printing multiple copies of a single document, and to build command files for automating complicated processing operations.

MailMerge is accessed from the WordStar no-file menu by keying M.

That, however, is not the way it's used. You must first create, with WordStar, a file which contains special dot commands and other special commands which, when processed by MailMerge, allow all those special things to happen.

Following is the first section a letter which I use. It shows just how one feature of MailMerge works.

```
.. Source product review notification letter
.OP
.CS
.AV "    TODAY'S DATE?",DATE
.AV "    COMPANY NAME?",COMPANY
.AV "         ADDRESS?",ADDR1
.AV "  CITY STATE ZIP?",ADDR2
.AV "   SOFTWARE NAME?",NAME
.AV "    CONTACT NAME?",CNAME
                  WOODY LISWOOD
                110 Upland Drive
            San Francisco, Ca. 94127
                (415) 585 - 6375


                                        &DATE&

&COMPANY&
&ADDR1&
&ADDR2&

Dear &CNAME&:

Thank your for participating in our review program.
This review may appear in at least two separate
media.  We plan on publishing this review in the
"CIDER PRESS, the nation-wide magazine of the San
Francisco Apple Core.  Also, I now publish a
software and hardware review magazine on THE
SOURCE.  As space permits, I will be publishing
selected reviews on The Source.

I have enclosed a copy of the article about &name&
that is written to go on-line.  If you wish to
reply, I will be happy to add your reply as a
comment section to the review.  In addition, we
plan to publish this article in the next scheduled
```

issue of the CIDER PRESS. The article for the CIDER PRESS may be slightly different since we will add illustrations and other graphics that we cannot utilize on The Source.

Since the Source a 24-hour-a-day 7-days-a-week telecommunications network, and since the magazine will always be active, rather than just printed once and forgotten or filed, there are some special needs which we, together, should address.

If you make changes to &NAME&, please keep me informed, especially if you have made improvements, have added significant features, or corrected problems which were mentioned or criticized in the review. I need to receive updates to check out the changes before I re-write any of the reviews.

This is critical to the success of this project.

The .AV'S tell MailMerge to ask me for those variable names. Then, when it sees a &name& within the text, it places the appropriate variable name within the text, and justifies it accordingly. It looks like an originally typed letter. How about that.

MailMerge works with CP/M data files also. It works the same way with some small exceptions. Instead of .av's, you first tell MailMerge the names, in sequence, which will be found between carriage returns in the data file. The you use those names within the &.....&'s. MailMerge will go through and place the appropriate data into the letter.

You can create the data files with WordStar using the Non-Document mode, you can use a program like DBASE II, or you can use DataStar, MicroPro's data storage program to create the files.

There is a ".DM" command for use also. This displays a message on the screen while MailMerge is going about it's work. You can say, now put the letter head stationary in the printer and press "P". Then display a request to now put the envelope in the printer...

A very powerful and flexible program.

Another Dot command of great use is the ".FI". This stands for insert a file. Whenever MailMerge reads this command and the file name next to it, it will then add that file to the text which is being printed. This way you can create a large boiler plate document by only keying in a series of commands. If you need paragraphs a, b, d, g, aa, zz, c, then qq. You would set up the MailMerge file with a series of ".FI A, .FI B". etc.

You can also span multiple disks using the ".FI" commands. You would set up the same way, but follow the ".FI B" with a "CHANGE". This tells the operator to change disks and will cause MailMerge to warm-boot the new disk without causing a BDOS error in CP/M. Why, you ask, would a document or documents to be printed as one printing be so large as to be spread over more than one disk? Perhaps each disk contains one chapter of a book. The MailMerge file would basically say print chapter one, change disk, print chapter two, change disk, and so forth. A useful feature for writers.

Another feature is the repeat printing feature. This tells the file to be repeated until a specified action has ended, a data file is used up, or a selected number of documents have been printed.

You can see that it is possible to build a command file with just dot commands, which would invoke a series of MailMerge documents, each of which might use a separate data file for processing. With continuous feed paper, you can come in, select one command file, and hope your ribbon holds out.

SUMMARY

A necessary and useful addition to the MicroPro - WordStar product line. If you do word processing, you really need the features found in MailMerge. It does lots more stuff than just Form Letters. Once you have gotten used to the command file structure and the learned the extra dot commands used for MailMerge, you will find many uses for it.

THE WORD PLUS

Review (c) by Woody Liswood 1982

Published by:

OASIS SYSTEMS
2765 Reynard Way
San Diego, Ca. 92103

Price: $150

System CP/M

Words, words, words, words, words. We all read, write and speak words. How many of us can speel (sic.) those same words? Besides, if you make as many typo's as I do, you are probably driven insane by the ability of your personal / micro / desktop (I still don't know what to call this thing) computer to multiply the speed at which you can hit the wrong key. Don't despair. Help is here. The WORD PLUS can help solve many of the problems associated with spelling, writing, and editing your files.

Unlike other spelling checkers which are single stand-alone programs, THE WORD PLUS comes as a series of programs and utility files spread over two separate disks. I reviewed the Apple version. Since this is a CP/M program, I could actually count the programs on the disk. The CP/M environment does not "copy protect and/or lock" the programs. Most of the documentation starts by telling you to make a back-up copy or two before you do anything.

The various programs can be run individually or you can use a "master" program which, in effect, calls upon the various individual programs so that the system acts as if it really were one large program.

There are a number of CP/M Word Processing programs which have large followings. I used THE WORD PLUS with WordStar.

First things first.

PROGRAMS

Here are the programs that come on the two disks, with a brief explanation about what each does. Later in the review there will be a detailed description of the main spelling system as well as comments about how it works. This is a very sophisticated package. Don't just read the brief description and assume that you know all about it, because the detail is very, very critical to understanding how this system works.

The main control program is labeled TW. When you run TW, it acts as a master program which runs three other programs for you.

SPELL is the first of those programs. SPELL finds the misspelled or unknown words for you by reading your document and comparing those words to its 45,000 word dictionary or to a supplemental dictionary which you may have created to keep correctly spelled words which are not in the main dictionary.

REVIEW is the next program in the sequence. It takes the list of unknown and misspelled words and shows them to you one at a time for decisions. There are a number of decisions to make.

MARKFIX then makes the corrections to the document. Yes, that's correct. THE WORD PLUS takes those corrected words and places them back into the document for you. You no longer must use the find feature of your word processor to go through your document and correct each of the words.

HYPHENS and HOMONYMS

HYPHEN will automatically hyphenate words which are of a certain length or longer using a hyphenation dictionary which is on the disk or using some special rules. These are "soft-hyphens" for WordStar.

LOOKUP allows you to enter a word that you may not know how to spell... you just enter in your best guess, and the program will give you a list of words which are similar in spelling to your entry.

FIND is a program for crossword puzzle lovers. You can say you have a word that is 15 characters long with a "r" in position four and a "q" in position 10. Then FIND goes through the dictionary to see if has that word stored.

ANAGRAM finds anagrams. For example, you enter "star" and ANAGRAM will give you rats and arts.

WORDFREQ will put together a list of words in your document and tell you how many times each of those words was used.

DICTSORT will read any word list or text file and alphabetize it for you.

WC stands for word count. Run WC and it will tell you how many words in your document.

PROBLEMS

I had no problems with this set of programs. It worked well, had no bugs that I found. I would make one suggestion. WC (word count) should be added to the TW program so that you are shown the number of words in the document during the spelling check program. The way it works now, the spelling check program only tells you the number of unique words and leaves out the total number of words. Oh well, things can't always be perfect.

DOCUMENTATION

The documentation was a stapled booklet which was three hole punched. It does the job. From my point-of-view, the documentation was to-the-point. When I needed to look something up, I was able to find it with no problems. What I also liked about it was that it did not spend pages telling me that I had just purchased the best, most absolutely fantastic, the greatest, the best selling, and the most magnificant solution to my only problem in the real world.

The documentation also contains some discussions about problems in writing, and in problems with compression 45,000 words to fit on a single 5 1/4 inch floppy disk. Those discussions were, in my opinion, very educational and should be read by any "student" of writing. They made the Documentation educational as well as descriptive of the programs.

I would like to quote from the Documentation. This is from a section called "THE SPELLING DILEMMA".

"Very few people have perfect recall when it comes to remembering how to spell a word. Everyone makes mistakes, usually because of the numerous inconsistencies built into the English language. THE WORLD PLUS will help you find and fix your spelling errors. But before we can show you how, we should talk about what we mean by a spelling error.

"Proper spelling of a word is often dependent upon how the word is used. In the sentence, "I would like a peace of pie", peace is spelled properly, but it is being misused. The proper word to use is "piece.". Words such as peace and piece are called "homonyms". The are words that have the same sound but are spelled differently. Confusion of homonyms is a common "spelling" problem. THE WORD PLUS cannot automatically detect incorrect homonyms for you, To do so would require that the program "understand" what you are trying to say, which is not a simple thing to do! However, the program MARKFIX can be used to locate and point out potential homonym problems. This will be described in greater detail later.

"The spelling checker will list some words as misspelled simply because they do not appear in the dictionary. This is to be expected because the dictionary is not infinite in size. In addition, many words which are unique to a particular part of the country, or which are technical jargon, will not appear in the dictionary...."

See what I mean, a nice approach to education and discussion about the problems of spelling. The approach to the problems of homonyms mentioned in the quote is a fascinating approach to the problem.

ERROR MESSAGES

There are numerous error messages built into the system. The one which I liked best is a self check as each of the programs run. If there are any problems you get this message:

* WARNING * This tool is damaged! Use another copy.

If this message appears, you go back to your master and make another copy of the program.

This was helpful. One of the original disks I received from OASIS had a bad sector. I got this message so I was able to quickly call OASIS and they sent a new disk by return mail.

Both are good features. First, the program told me that further use could "wreck havoc" with any text file I tried to check. Second, OASIS responded immediately with a new disk. No muss, no fuss.

RUNNING TW

You can run THE WORD PLUS from the CPM prompt by keying in TW. If you already have WordStar booted, you can run the sequence from within WordStar and it will act like it is part of the program. Rather than key in S from the "NO FILE MENU" as you would to run SPELLSTAR (WordStar's spelling check program) you key in R (for the Run a program section of the menu). Then, you type TW abc.doc or whatever the name of the document file is and the entire system will run. Oh, when all is done, TW returns you to the WordStar NO FILE MENU.

SPELL

The SPELL program is used by the TW program. The only unusual thing to watch for is that hyphenated words are treated as two words and the - is treated as a space. There is, however, one exception. If the hyphen is located at the end of the line, it is ignored. In addition, "soft-hyphens" are ignored also.

What are "soft" hyphens, you ask? Well, WordStar, during forming of paragraphs with justified right and left borders will, if you desire, allow you to insert a soft hyphen into a word that should be broken between two lines. It is called a soft hyphen because, if you later edit the document and add or subtract text so that when the paragraph reforms again the hyphenated word is now in the middle of the line rather on the end, that hyphen will not print in any hard copy you make of the document even though it still shows on the screen when editing the document. If you are using an Videx board with an Inverse chip, then the soft hyphen will appear in your document in inverse.

The first time you use the SPELL program you go through a series of questions. Your answers are then saved as default values until you request a change in those defaults. The most important of those defaults, to me, is the ability to save "context information". If you respond yes, then you may view the potential misspelled word in the context it was used during the decision part of the operation. You can also, by defaults, name special dictionaries, ignore dot commands, ignore upper case words, ignore backslash comments (Magic Wand uses backslash rather than dot commands), and use any character you want as a marking character.

After your document is checked SPELL tells you how many unique words you have, and how many words must have decisions made about them. You are given a menu which explains the options for each word. The menu looks like:

```
Add word to:              Other options:
  U>date dictionary         P>revious word
  S>PECIALS.CMP             N>ext word
  M>isspelled list          R>esume review
  D>iscard                  L>ook up word
  C>orrect word             V>iew context
```

Here's what they do:

At the bottom of the menu the word that you are currently making decisions about is shown.

Keying a "U" says that the word is spelled correctly and it should be added to the dictionary so that the next time it is used it will not be listed as incorrect.

S places that word into a different dictionary list. This may be words that you want to save or review later and that, for some reason, you don't want in your normal dictionary. Actually, for the life of me, I really haven't figured out why someone would want to have correctly spelled words not checked during the spelling check operation. If you know, please let me know.

M says don't do anything with this word right now. It will be marked in the text with the marking character which you have chosen to use.

D says to ignore this word. It may be spelled correctly, or an abbreviation which will be only used this once so you don't want to clutter up a dictionary with it. The "D" stands for discard. It really means discard this word from the misspelled word file.

C says to correct the word. You can type in the correct spelling. If you used the "L" command, you can key in a Control-A or whatever a potential word was listed at and that word will automatically take the place of the misspelled word. Read about the "L" command for details.

P lets you look at the last word you had misspelled.

N shows you the next word in the misspelled list.

R gets you back to the current word after you have been using the P N or C commands to work on other words. For example, you might, after thinking for a few moments, go back to a word you marked as correct, and change its spelling, then press "R" to get back to the current place.

L will search the dictionary and give you a one or a few choices as to potential correct spellings for the word under question. Each of these potential correct spellings is labeled. If you wish to use one of them, you do not have to type them in. When you are in the "C" command, a Control-? for that label will automatically place the correct version for you.

V will show you the word in question in the context that you used the word. If you did not select to create a context file during the initialization phase of the program, then you cannot use this option.

MARKING WORDS

When you are finished, TW then goes through and automatically corrects your text file. It places all of the correct words back into their proper place. Also, it tells you if any of those words are of a different character length than the word which it replaced and requests that you reformat your file if there is now a different character count. It also maintains the update dictionary, and it also marks the words if you had requested it to do so. When done, a prompt says hit any key to return to WordStar. And there you are, back at the no file menu ready to do what ever is necessary.

If you use the SPELL program by itself, there are a number of options to allow you to customize the program for your own particular needs. Many of those options are covered by the defaults for the TW program. Also, if you have created special dictionary full of the esoteric jargon you use in your trade, then you can direct the SPELL program to use that particular dictionary during its operation by adding the dictionary name to your instruction line then followed by the option switch. Here's an example.

C>SPELL C:WORDPLUS

would do a spelling check program on a file found on drive C called WORDPLUS.

C>SPELL C:WORDPLUS JARDICT $P

would do the same thing but also use the dictionary name JARDICT as an additional dictionary to check for words.

SPELL automatically checks a file labeled UPDICT.CMP if it is found on the logged drive after it checks the main dictionary.

HYPHEN

The HYPHEN program is useful if you do lots of reforming of your text files to fit various column widths, or if you do much printing of narrow columns. This program will insert soft hyphens into your text. The default is that it hyphenates words longer than 13 letters. You can change the defaults. In addition, any soft hyphens you have already used will not be disturbed. Your editor says, now that they have approved the article, that the text should be set using your printer at 25 characters per line. Before HYPHEN, you would boot your word processor, set the new margins, and reform the output. Then, if you used WordStar, you would use the hyphen-help feature to help you decide if you wanted to hyphenate words so that there was less space between words on a formed line.

Now, you run HYPHEN. It inserts soft hyphens in all of the words that can take them. Then you can run WordStar and find that the hyphens are already there. It works.

The documentation says that it uses a technique described by "Donald Knuth in a book TEX and METAFONT, NEW DIRECTIONS in TYPESETTING. In addition, it maintains a separate dictionary for words which cannot be hyphenated using those rules. The Documentation contains a lengthy discussion of the problem. If you write, you should read that section.

LOOKUP

LOOKUP does just that, it looks up words that may be misspelled and suggests correct spellings. The Documentation says that there are four most common ways to misspell words and elaborates on those ways. Again, an interesting tutorial.

SPEED

All in all there are 699 unique words in this article. This number came from the TW program as it read the article to check for spelling. From the time I ran the program from WordStar, until the time I was ready to start making decisions about words not found in the dictionary was approximately 62 seconds.

After I checked the spelling, I ran the WordFreq program. It told me that there were 2954 words in the article. That I had 699 unique words. And, sakes alive, I managed to use 361 words which appeared only once. How about that?

SUMMARY

This set of programs is a valuable addition to the writers library. It is well documented and well constructed. I had no bombs or other mishaps when using it. It worked better and easier than any of the spelling check programs I had been using prior to using THE WORD PLUS. The feature I liked best was that it automatically corrected the word and that I did not have to go back and go through the file one word at a time to fix.

★ Software Applications Directory, Parts IV & V, Page 14

Covering The ISO World

Computer Business News

Serving Computer Retailers, Dealers, Distributors, Systems Houses and Other Independent Sales Organizations

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CP Plus Replaces CP/M With English

By Deborah de Peyster
CBN Staff

SAN FRANCISCO — The CP/M user training classes given by retailers and dealers will soon be obsolete if Taurus Software has its way.

Taurus Software Corp. has designed a software package called CP Plus to make working with CP/M easier. The software is an add-on package that replaces CP/M commands with English language menus and directions to make microcomputers more accessible to unsophisticated users, the company said.

"Over the years I have seen a growing number of frustrated first-time CP/M users who have become confused by complex commands," said John Simpson, president of Taurus. "CP Plus bridges the communications gap imposed on non-sophisticated operators by control programmers."

"We expect to make obsolete those training sessions that dealers and retailers have to set up to teach people how to operate CP/M systems," he said. "People who want to write programs may still need them, but those CP/M classes for people just wanting to operate their computer efficiently should be a thing of the past."

And if for some reason the software doesn't live up to expectations, Taurus Software will stand behind its 15-day money-back guarantee, the company said. CP

See Page 4

Continued from Page 1

Plus is list-priced at $150 a copy and includes complete documentation, the company said.

The company announced the product in March and it became available about 10 days ago. Already Softsell Distributing, Micro D, and Software Distributors have signed up as distributors for the product. No minimum order is required and discounts range from 36 percent for orders of 1 to 4, to 50 percent for orders of more than 500. Special volume sales contracts can be signed by distributors that want to make their own copies, a company spokesperson said.

On the retailer and dealer level, the company is providing some special marketing support of the product including a full sales kit with color brochures and a sales clerk's guide. Promotional activities

'h dealers and distributors are now be-
'anned for continued direct product
the company said.

Personal Computer 16-bit ver-
s is anticipated by the end
of t. okesperson said.

Users orne Computer and
Xerox 820. ight find CP Plus
too unwieldy tems. The program resides in in memory
and at the maximu K of disk
space. When it is not e he program uses no disk space, er-
son said. The program d down the system's operation, s.

Operating a computer with CP Plus involves following the steps outlined in English shown on the computer screen. In addition to the various menus, directions, and messages for the operator, CP Plus also offers several "Help" commands for those times when an operator might feel stymied, the company said.

CP Plus is installed by inserting the CP Plus disk and answering a few questions in English about the computer. After the one time operation, which takes about 10 minutes, the computer is ready to function in everyday conversational terms, the company said.

CP Plus is compatible with any system using CP/M, including those with optional add-on circuit boards for CP/M. As long as a manufacturer has not modified CP/M for its own hardware, CP Plus installs directly on top of CP/M versions 1.4 and 2.2, the company said.

In the coming months, Taurus Software plans to announce more versions of CP Plus for other CP/M variations as well as for other microcomputers.

Applications software products such as word processing and bookkeeping also run smoothly on CP Plus if they are already compatible with CP/M, the company said.

CP Plus was introduced at the West Coast Computer Faire and the company has observed a particular interest from businesses for the product. Business people, who make up the majority of microcomputer users, see real productivity increases with CP Plus, said Simpson.

With the difficult-to-understand codes required for doing everyday "housekeeping" tasks, jobs like disk backup copying often were delayed or overlooked. "Many businesses risk severe losses from fire just because the computer intimidates people into procrastination in the steady accumulation of off-site backup files," he said. "CP Plus, on the other hand, makes file maintenance and disk copying easy to keep current."

In addition, CP Plus allows those employees that are not specially trained to feel comfortable with the computer, he said. "The start up time for a newly installed computer can be reduced and the disruption with a personnel change for the operator's position can be far less severe," he said.

Taurus Software was incorporated in February 1982 on the belief that interface standards between people and their microcomputers need to be improved.

"We are standing on the threshold of a friendliness revolution and Taurus is going to spearhead it," Simpson said.

Taurus Software Corp., Suite 817, 870 Market St., San Francisco, Calif. 94102, (415) 788-0888.

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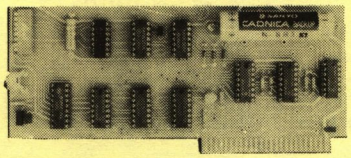

- Twenty-seven page operating manual included with many examples of programs to use with your Apple in any configuration.
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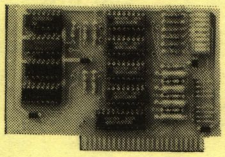

- Complete 16 volce music synthesizer on one card. Just plug it into your Apple, connect the audio cable (supplied) to your stereo and boot the disk supplied and you are ready to input and play songs.
- It's easy to program music with our compose software. You will start right away at inputting your favorite songs. The Hi-Res screen shows what you have entered in standard sheet music format.
- We give you lots of software. In addition to Compose and Play programs, the disk is filled with songs ready to run.
- Easy to program in basic to generate complex sound effects.
- Four white noise generators which are great for sound effects.
- Plays music in true stereo as well as true discrete quadraphonic.
- Envelope control.
- Will play songs written for ALF synthesizer (ALF software will not take advantage of all the features of this board. Their software sounds the same in our synthesizer.)
- Automatic shutoff on power-up or if reset is pushed.
- Many many more features.

PRICE $159.00

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- 8 Channels
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- Eliminates The Need To Wait For A/D Conversion (just PEEK at data)
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Our A/D board comes standard with 0, 10V full scale inputs. These inputs can be changed by the user to 0, -10V, or -5V, +5V or other ranges as needed.

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- Features 8 inputs that can be driven from TTL logic or any 5 volt source.
- Your inputs can be anything from high speed logic to simple switches.
- Very simple to program, just PEEK at the data.
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- TOTALLY compatible with all CP/M software.
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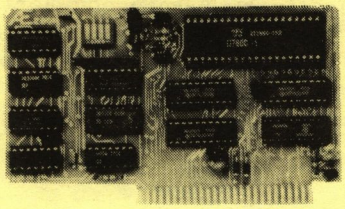
- Hardware and software settable switch options.
- An on-card PROM eliminates many I.C.'s for a cooler, less power consuming board.
- Complete documentation included. (user must furnish software)



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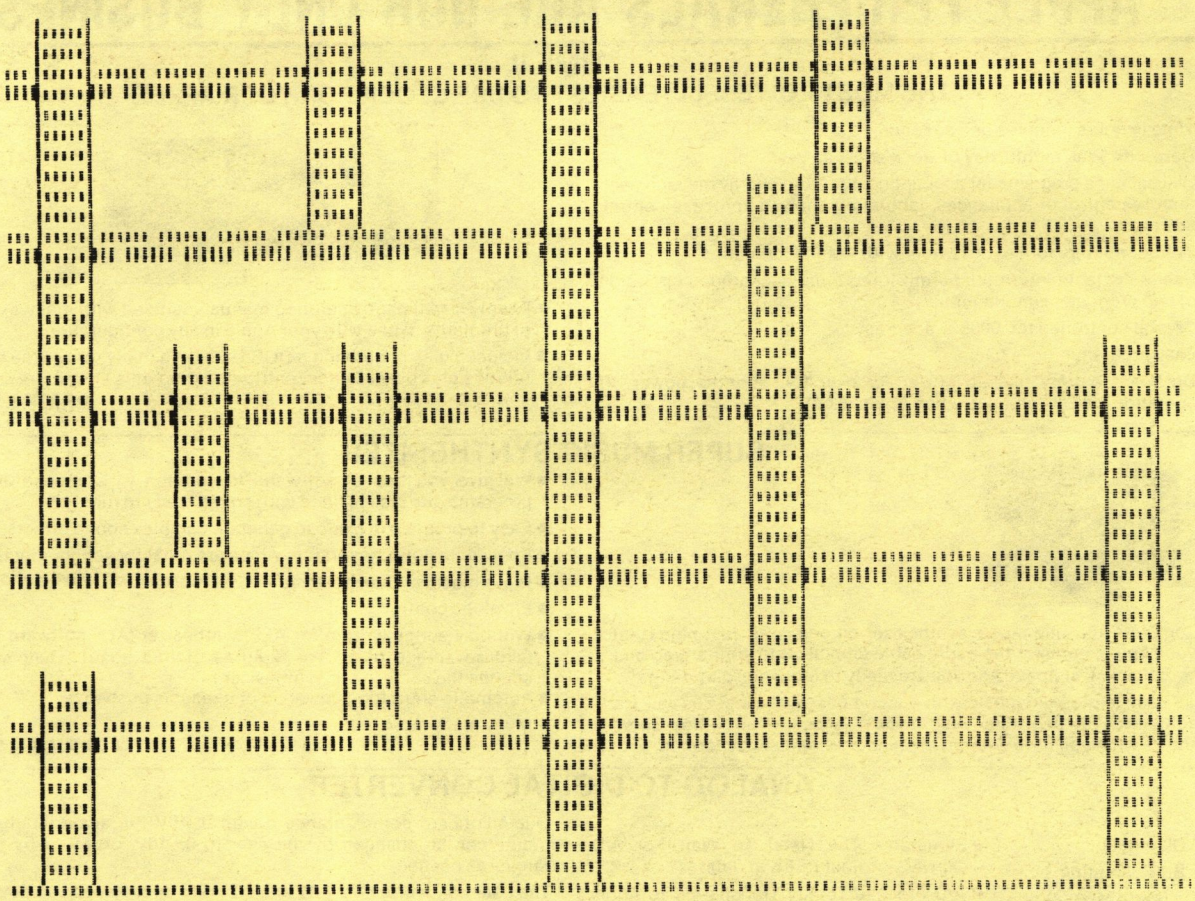


APPLE PANIC SCORES AGAIN

Almost anything of interest can get printed in the Cider Press. The mail box occasionally has some real treats. This print out recently 'appeared', and the message on the backside simply stated: "WHEW... The game ended here and I printed the wrong Hi-Res page (It just doesn't show my man)". The signature is by "Professor Horticulture - Software Intelligence".

I get the feeling that a challenge has just been issued by P.H. Send YOUR best score for this (or other) game and I'll keep some sort of box score.

GW

GOOD NEWS FOR 'TURTLE LOVERS'
by GW

Many 'Core members are branching out into 'other' languages. LOGO is getting lots of attention. There is 'never' enough information about these 'other' languages, so here's a tip.

The **Young Peoples' LOGO Association, Inc.** publishes "Turtle News" and "Logo Newsletter" on a monthly basis. YPLA memberships are twenty-five dollars for adults (per year) for both publications. The May, 1982 issue of "Turtle News" states that young person memberships (under 18 years) are at "no charge", and monthly issues of "Turtle News" will be sent. There is also a software exchange. For further information write to:

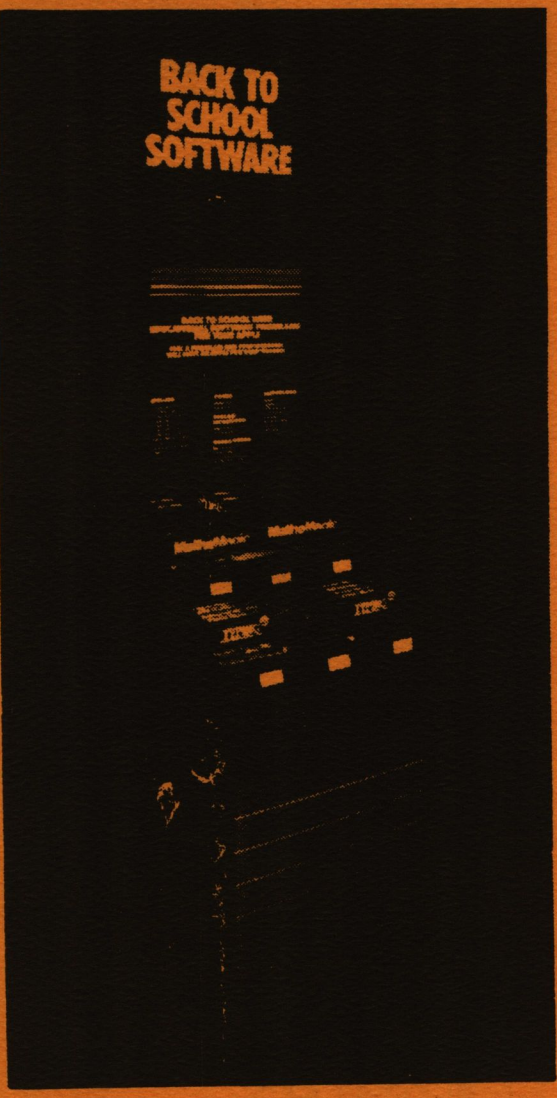
Young Peoples' LOGO Association, Inc.
1208 Hillsdale Drive
Richardson, Texas 75081

Systems Technology
COMPUTERS FOR HOME AND BUSINESS

933-1131

375 N. WIGET LANE, SUITE 150
WALNUT CREEK, CA 94598

IF YOU THINK EDUCATION SHOULD BE FUN AND GAMES, YOU'RE RIGHT.



And here's some educational software programs for your Apple* that'll prove it. They're written to put the fun back into learning for your whole family. From first grade on up...

Choose from adventures in MATHEMATICS...SPELLING ...TYPING...CIVICS... ENGLISH...READING ...AND MORE...

Sound exciting? Look for this display and take some Back To School fun and games home with you.

*Apple is a trademark of Apple Computer, Inc.

© 1982 Micro D, Fountain Valley, CA

Which would you rather speak?

```
A  PIP A:=B:ACCNT1.DAT[V]
```

Your computer's language.

```
CP PLUS DISK FILE COPY
This facility allows copying of files
from one disk to another.
YOUR CURRENT DISK IS DRIVE A. DRIVE TO COPY TO? B
FILENAME OF FILE TO BE COPIED?      ACCNT1.DAT
```

Or your own.

Hello CP+. Goodby CP/M® techno-jargon.
It's time you had a talk with your computer—in English. With CP+ add-on software, you can.

CP+ eliminates complicated CP/M® commands, and replaces them with simple English messages, "menus" and directions. It takes the frustration out of CP/M® computing. So even non-technical users are guided through all their computer functions, including "housekeeping" tasks (such as COPY, ERASE, PRINT).

Put an end to "Terminal Fright."
CP+ lets people relax at the keyboard, without fear of making mistakes. With the CP+ Demonstration and Self-Teaching Guide they learn fast, and enjoy themselves. As their anxiety level goes down, your productivity goes up. And speaking of productivity...

CP+ friendliness sets a faster pace.
The easier it is to control your computer, the more you get out of it. So CP+ offers features like single-key program selection. And, among many others, print queuing, where you line up additional printing jobs while the first one is still running.

Easy to install. Hard to resist.
You can install CP+ in as little as ten minutes. And evaluate it risk-free for up to fifteen days. Order it from your dealer, mail in the coupon, or call us toll-free—and get acquainted with CP+. The $150 add-on Control Program that speaks your language.

CP+

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In California, 800 772-2666 X975

Yes! Send me more information. I'd like to read the CP+ brochure, and learn how much easier using CP/M® can be. Also, send me the name of my nearest dealer.

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ZIP _____ TELEPHONE ( ) _____
DISK SIZE: ☐ 5¼" ☐ 8"
NAME and MODEL OF COMPUTER _____

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870 Market Street, Suite 815
San Francisco, CA 94102
Tel.: (415) 788-0888
DEALER INQUIRIES INVITED

CP+ runs on all systems using standard CP/M ® V1.4 or 2.2. On receipt of your order, Taurus will call you to confirm your system hardware details.
CP/M ® is a registered trademark of Digital Research Corp.

SAN FRANCISCO APPLE CORE
INCORPORATED
1515 Sloat Blvd., Suite 2
San Francisco, CA 94132

The San Francisco Apple Core is a non profit corporation whose purpose is to share information about Apple computers, and to provide services to Apple users. Membership is not limited to Apple owners. The SFAC is run by volunteer officers appointed by the Board of Directors, which is elected annually by the general membership.

General meetings are held monthly in San Francisco, California. "Interest groups", which meet in the San Francisco area, focus on specific applications of Apple use (Visicalc, etc.), and programming languages (Basic, Pascal, Assembly, etc.)

THE CIDER PRESS is the official publication of the SFAC. It is published 8 to 10 times a year and is mailed bulk/3rd class to each member residing in the United States, and air mail to each foreign member (Canada 1st class). It includes program listings, tips, special features and reviews which are CONTRIBUTED BY MEMBERS.

Each month, we put together a "Disk of the Month", or DOM, of **PUBLIC DOMAIN, NON-COPYWRITED** programs donated by members. These disks may be purchased by members at the monthly meetings, or by mail. The DOM programs from 1978 and 1979 have been organized by category and formed into Library I, in a binder with catalog information. Library II contains the DOM programs from 1980. The 1981 DOM programs can be purchased as a group, called the 1981 DOM Yearbook. Prices for these and other items, and detailed information regarding purchases can be found in the Cider Press.

To become a member of the SFAC, complete and return an application with the appropriate payment. Checks or money orders must be in U.S. funds payable through a U.S. bank. The below listed amounts include the $20.00 annual dues and foreign mailing costs.

The SFAC does not accept companies or organizations as members. *All applications must be in the name of a person.* Please allow 6-8 weeks for processing of your membership.

USA	$20.00
Canada	$30.00
Mexico, Carribbean, Central America	$33.00
South America, Europe, North America	$41.00
Eastern Europe, Asia, Pacific Isles	$47.00
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San Francisco, CA 94132

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